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Flooring—Linoleum Armstrong's

Armstrong Cork Company

LINOLEUM DIVISION

Lancaster, Pa.

Atlanta, Ga.—1228 Candler Bldg.

Chicago, Ill.—1206 Heyworth Bldg.

Cleveland, O.—1205-6 Ulmer Bldg.

Dallas, Tex.—302 Melba Theatre Bldg.

Denver, Colo.—725 Symes Bldg.

New York City—295 Fifth Ave.

San Francisco, Cal.—525 Rialto Bldg.

Seattle, Wash.—803 Terminal Sales Bldg.

A. I. A. Classification 28il

FOURTH EDITION—APRIL, 1924

Completely Revised

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CCA

ARMSTRONG'S LINOLEUM FLOORS

DETAILED SPECIFICATIONS

and

COMPLETE DESCRIPTION

FOR THE USE OF ARCHITECTS
INTERIOR DECORATORS
AND BUILDERS



FOURTH EDITION—APRIL, 1924

Completely Revised

ARMSTRONG CORK COMPANY

Linoleum Division

LANCASTER, PA., U. S. A.

NEW YORK—295 Fifth Avenue
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How to Use This Book

In this, the fourth completely revised edition of "Armstrong's Linoleum Floors" is presented practical and technical information that the architect or builder needs to specify permanent floors of linoleum. In size and arrangement, this book follows the recommendations of the American Institute of Architects.

In presenting this specification folder to you, it is sincerely hoped that not

only will it find a place in your file and prove useful whenever you need linoleum information, but that it will also help you to become better acquainted with the possible uses, as well as the high quality of Armstrong's Linoleum, and the prompt, efficient service that has been characteristic of this Company for more than sixty years in the several departments of its business.

Varieties of Armstrong's Linoleum

LINOLEUM takes its name from one of its principal ingredients, linseed oil (linum, flax, and oleum, oil). The oil is oxidized by exposing it to the air until it hardens into a tough, rubber-like substance, is ground, and then is thoroughly mixed with powdered cork, wood flour, various gums, and suitable color pigments. The resulting plastic mass is pressed on burlap by means of heavy calenders, the exact processes varying with the individual kind of linoleum. The "green" linoleum then passes into drying buildings called "stoves," where it is cured and seasoned from two to six weeks, depending on the thickness of the material.

The several varieties of Armstrong's Linoleum are described in the following paragraphs. For reproduction of actual colorings and representative designs, see the color pages at the back of this folder.

(a) *Battleship and Plain Linoleum*—Solid color linoleum without pattern. The four heavier or thicker gauges are known as 1/4-inch, 6-mm., 3/16-inch and Light Battleship (A gauge with unpainted back). Altogether there are seven thicknesses of Plain Linoleum, and seven colors: viz., No. 20, brown; No. 21, green; No. 22, dark gray; No. 26, light gray; No. 27, black; No. 28, tan; and No. 29, blue.

Gauge	Made In
Battleship 1/4"....Colors	Nos. 20, 21, 22
Battleship 6-mm.Colors	Nos. 20, 21, 22
Battleship 3/16".Colors	Nos. 20, 21, 22, 27
Light Battleship.Colors	Nos. 20, 21, 22
A gauge.....Colors	Nos. 20, 21, 22, 26, 27, 28, 29
B gauge.....Colors	Nos. 20, 21, 22, 26, 27, 28, 29
C gauge.....Colors	Nos. 20, 21, 22, 27
D gauge.....Colors	Nos. 20, 21, 22, 27

All Armstrong's Battleship and Plain Linoleum is manufactured six feet wide only, in rolls approximately ninety feet long.

(b) *Jaspé Linoleum*—A species of inlaid linoleum, in which the colors run clear through to the back. It presents a striated appearance with a two-tone effect, and is made in three gauges—A and B, in each of four colors: No. 13, light gray; No. 15, dark

gray; No. 16, light brown; No. 17, dark brown; No. 18, blue; and No. 19, green. The third gauge, 3/16-inch, may be had only in colors Nos. 15 and 17.

(c) *Inlaid Linoleum (Straight Line and Moulded)*—The colors of the patterns go through to the burlap. In making Straight Line Inlaid, the individual parts of the pattern are die cut and automatically laid in position on the burlap by machine. The pattern is then keyed to the burlap under enormous pressure. In making Moulded Inlaid, the designs are worked out on the burlap by means of metal stencils. The loose "mixes" mould slightly into each other along the lines of the design, thus making possible very artistic effects in carpet designs and similar patterns.

(d) *Marble Inlaid Linoleum*—The newest development in Straight Line Inlaid Linoleum. The patterns consist of large marbled blocks in contrasting colors, arranged in several designs. See colorplates at back of book. Made in A gauge only.

(e) *Inset Tile Inlaid Linoleum*—A Straight Line Inlaid Linoleum in which the pattern consists of solid color blocks 5 1/2 inches square with 1/2-inch interlining strips of a contrasting color. It is made only in the A gauge.

(f) *Inset Marble Tile Inlaid Linoleum*—A Straight Line Inlaid Linoleum of the same design as Inset Tile, except that the 5 1/2-inch square blocks are marbled in appearance. It is made in the A gauge only.

(g) *Granite Linoleum*—A variety of inlaid, which has a mottled appearance resembling terrazzo. Made in the B and C gauges and in three colors: No. 3, green; No. 5, blue; No. 6, brown. May be had either six feet or twelve feet wide.

(h) *Printed Linoleum*—A light gauge of plain linoleum with a design printed on the surface with oil paint. Under ordinary use in homes, printed linoleum will give long service, and even though the design wears away, the plain linoleum remains.

Armstrong's Cork Carpet

Cork carpet is made of relatively large granules of cork by a process which preserves the natural elasticity to a high degree. Cork carpet, therefore, not only softens footsteps, but helps absorb other noises as well. For libraries, churches, museums, auditoriums, and other rooms, therefore, where excessive dirt is not tracked in directly from the street and where heavy traffic is not an everyday occurrence, cork carpet is admirably adapted. Where the wear is severe, and the floor is in almost daily use, and hence needs frequent cleaning, Armstrong's Linoleum in the battleship thicknesses is recommended. Armstrong's Cork Carpet is made in two gauges, XXX and XX, each in two colors, brown and green.

Armstrong's Linoleum Cove and Base

For hospitals and institutions of similar character where it is necessary to provide a sanitary trim that meets the floor and which affords no place for the collection of dirt, Armstrong's Sanitary Cove and Base is especially recommended. This cove and base is made of the same materials used in Armstrong's Linoleum and comes in the three battleship colorings,—brown, green, and gray. Gauge of the cove is $\frac{1}{4}$ -inch, but it can easily be sanded down to fit any gauge of linoleum used with it. It is made six inches high only, and in 20-inch long sections, with convex and concave corner sections made separately.



ARMSTRONG'S LINOLEUM SANITARY COVE AND BASE
Sanitary Cove and Base may be used advantageously with floors of battleship linoleum. The cove and base is installed first. Then the linoleum is butted against the lower edge of the cove, and the joint sealed with waterproof cement.

Armstrong's Linoleum Paste (nonwaterproof)

Armstrong's Linoleum Paste (nonwaterproof) is an inexpensive, quick-setting, strongly adhesive paste, used for pasting the deadening felt to the floor and the main area of the linoleum to the deadening felt lining. It is free from all materials injurious to linoleum. Purposely made with a heavy body to speed up setting and improve its adhesive powers. Should be spread always with a paste spreader as illustrated on Page 11. If the proper precautions are observed, it does not freeze when subjected to ordinary temperature variations, and will not lose its adhesive powers, if kept properly covered.

One gallon of paste covers about one hundred square feet. In calculating the amount required for laying linoleum over deadening felt, it must be remembered that the floor area should be doubled, for the two operations of pasting the deadening felt to the floor and the linoleum to the deadening felt lining.

Armstrong's Waterproof Linoleum Cement

Armstrong's Waterproof Linoleum Cement is a strong adhesive, made with special care with regard to its waterproof qualities. It is entirely free from sodium silicate (water glass) and other ingredients likely to injure linoleum. It is made purposely quick-setting and takes hold while the linoleum is being rolled.

Waterproof cement should be used for sealing all seams, edges, and openings in the linoleum. One gallon of cement covers about sixty square feet of floor space. When used for the seams and edges only, a gallon may be figured for about three hundred and sixty square feet of linoleum.

Linoleum must never be laid with a cement containing alkalies such as sodium silicate (water glass), sodium carbonate (soda), and sodium borate (borax). When wet, this kind of cement affects the oxidized linseed oil in the linoleum adversely, causing it to saponify. The linoleum, as a result, may disintegrate.

Table of Linoleum Gauges and Weights

(The gauges and weights given in this table are the manufacturing standards for the various kinds of linoleum. Slight variations may occur, but for all practical purposes these figures are substantially correct.)





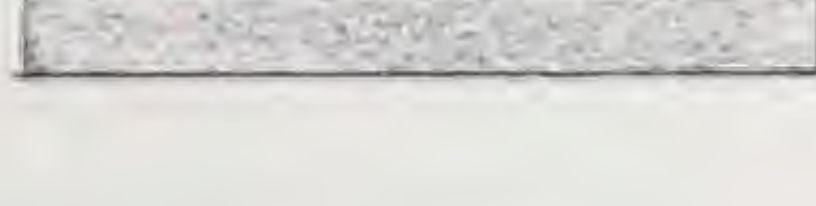
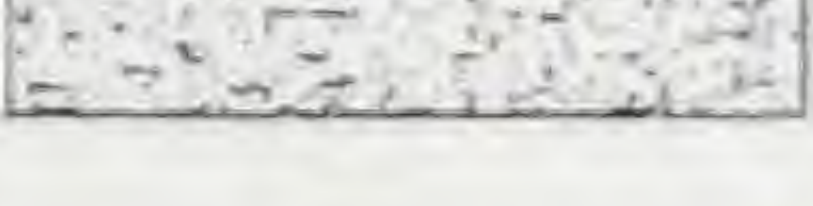

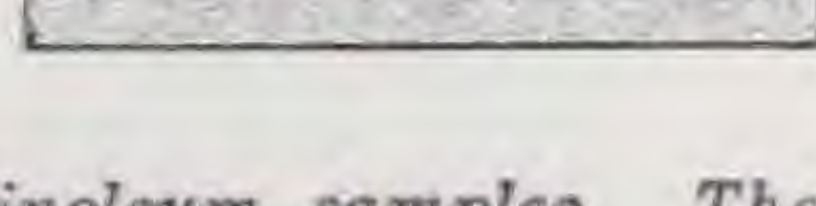
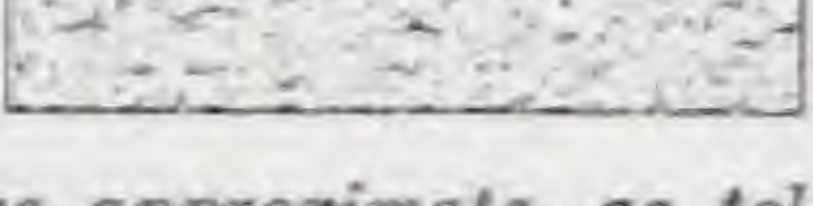
Kind of Linoleum	Width in Feet	Working Gauge in Nearest Fraction Inch	Finished Gauge Inches	Average Net Weight Per Sq. Ft. Lbs. (Uncrated)	Average Crated Weight Per 90' Roll	Average Length of Roll in Feet
Plain Linoleum						
Battleship 1/4-in.*	6	1/4	.250	1.48	**	90
Battleship 6-mm.*	6	1/4	.235	1.41	912	90
Battleship 3/16-in.	6	3/16	.187	1.10	870	90
Light Battleship †	6	5/32	.142	.88	685	90
A gauge †	6	5/32	.142	.88	539	90
B gauge	6	1/8	.119	.76	539	90
C gauge	6	3/32	.095	.60	460	90
D gauge	6	3/32	.080	.50	372	90
Jaspé Linoleum						
3/16-in.	6	3/16	.187	1.14	709	90
A gauge	6	5/32	.142	.94	575	90
B gauge	6	1/8	.119	.79	478	90
Granite Linoleum						
B gauge	6	3/32	.095	.63	394	90
B gauge	12	3/32	.095	.63	789	90
C gauge	6	3/32	.078	.53	336	90
Straight Line Inlaid						
A gauge	6	1/8	.118	.93	569	90
D gauge	6	3/32	.071	.53	331	90
Marble Inlaid	6	1/8	.118	.94	562	90
Inset Tile	6	1/8	.118	.97	574	90
Inset Marble Tile	6	1/8	.118	.94	562	90
Parquetry Tile	6	1/8	.118	.89	532	90
Parquetry	6	1/8	.118	.89	532	90
Moulded Inlaid						
B gauge	6	3/32	.095	.66	402	90
B gauge	12	3/32	.095	.66	813	90
C gauge	6	1/16	.078	.53	331	90
C gauge	12	1/16	.078	.53	673	90
Printed Linoleum						
D gauge	6	3/32	.084	.52	325	90
D gauge	7.5	3/32	.084	.52	417	90
D gauge	9	3/32	.084	.52	492	90
D gauge	12	3/32	.084	.52	661	90
E gauge	6	1/16	.069	.44	278	90
E gauge	7.5	1/16	.069	.44	359	90
E gauge	9	1/16	.069	.44	425	90
E gauge	12	1/16	.069	.44	562	90
Cork Carpet						
XXX gauge	6	9/32	.264	.88	582	90
XX gauge	6	1/4	.230	.73	487	90

* Note—Architects and contractors who specify quarter-inch battleship linoleum in their work are cautioned to make sure that they actually get what they specify. Battleship linoleum of 6-mm. gauge (.015-inch less than 1/4-inch gauge) is sometimes offered and substituted for genuine 1/4-inch battleship linoleum under the name of "Commercial 1/4-inch Battleship." Every yard of Armstrong's Battleship Linoleum has the gauge plainly stamped on the burlap back.

† Note—Light Battleship is A Gauge Plain Linoleum with unpainted back.

** Note—When using the "average crated weight per roll" figures for estimating freight charges it must be remembered that all rolls do not contain the same yardage. The minimum length of a roll is 60 feet, the maximum, 100 feet. The average length of a roll is approximately 90 feet.

THICKNESS OF ARMSTRONG'S LINOLEUM SHOWN GRAPHICALLY

	1/4" BATTLESHIP		A GAUGE PLAIN (Light)		D GAUGE PLAIN
	6-mm BATTLESHIP (Heavy)		B GAUGE PLAIN		XXX CORK CARPET
	3/16" BATTLESHIP (Medium)		C GAUGE PLAIN		XX CORK CARPET

This chart is reproduced from actual linoleum samples. The thicknesses shown are approximate, as tolerances of .005 inch either way from the figures quoted in the table above are regarded as standard thicknesses for finished material.

Specifications for Linoleum Floors

THE most satisfactory way yet developed to lay linoleum or cork carpet over a wood base is to cement it firmly over a layer of builders' deadening felt. (For a complete exposition of the purposes and advantages of the felt lining, see page 16.)

Unsaturated deadening felt, weighing 11½ pounds per square yard (made by Bird & Son, East Walpole, Mass.) is first pasted to the floor with Armstrong's Linoleum Paste (nonwaterproof). The linoleum is then pasted to the deadening felt lining. The

seams and edges of the linoleum are sealed with Armstrong's Waterproof Linoleum Cement. Laid in this manner, linoleum will wear longer and retain its resiliency indefinitely. There will be no trouble from buckling or shrinking. The work of laying can be done expeditiously. No retrimming required.

On a concrete base, linoleum, to give best service, should always be cemented. The advantages of using the lining of deadening felt under linoleum laid on concrete underfloors are explained on page 16.

General Specification Data

Architects may simplify their work and save time required for copying paragraphs on linoleum laying into their own specifications, by using the following paragraph:

"Linoleum—The linoleum contractor shall furnish and install Armstrong's Linoleum in accordance with Specifications Nos. —, given on pages — of the manufacturer's specification book, 'Armstrong's Linoleum Floors,' Fourth Edition, April, 1924.* Linoleum to be furnished and installed in gauges and patterns for the rooms indicated in the plans, as follows:

(Here list rooms, gauges, and patterns)."

(1) Linoleum floors should not be installed in basements or on any cement floor in direct contact with the ground, unless the base, floors, and walls below grade have been thoroughly waterproofed, and are absolutely dry before the floor is laid. (See Special Concrete Waterproofing Recommendation, page 7).

(2) Wood floors to which linoleum is to be applied may be double floors with the underfloor laid diagonally to the floor joists. Underfloors should be of well seasoned boards, the ends of all boards to come directly over bearings and all to be well nailed to each and every bearing with eight-penny common nails.

(3) Top floors to which linoleum floors are to be applied (whether single or double floors) should be of kiln dried, matched and end matched boards free from large or loose knots, not more than 3½-inch face and thoroughly blind nailed (if single floors), to each and every bearing, and if double floors, blind

nailed to the underfloor every 16 inches with eight-penny common nails.

(4) The surface of the top wood floor to which linoleum is to be applied should be true, even, level, clean, and dry, and should be 1/8-inch plus the thickness of the gauge of linoleum selected, (see table of working gauges, page 5), below the desired finished linoleum floor level. It is sometimes cheaper and more practical, however, to continue wood floors on which linoleum is to be laid at the same general level with other floors, and then protect the linoleum at doorways with a wood, rubber, or metal binder.

(5) Where a wood base is used in connection with linoleum floors, the carpenter work specifications should provide for a quarter-round or other suitable floor mould to cover the junction of baseboard and linoleum, to be secured by the carpenter contractor after the linoleum is laid.

(6) Concrete floors must be brought to a true, even, and level surface, 1/8-inch plus the thickness of the gauge of linoleum selected, below the desired finished linoleum floor level. Because of the difficulty in fastening a binder to concrete, it is practically always preferable to make this allowance in floors to be covered with linoleum, rather than retain the same floor level throughout and attempt to protect the linoleum at doorways with a binder.

(7) Where concrete floors are to be covered with linoleum, better adhesion usually

* Copy of this book will be furnished to any architect or contractor upon request.

obtains between linoleum and concrete if the base is treated with a concrete hardener.

(8) When single strips of linoleum are laid as runners in corridors, hallways, church aisles, etc., the edges of the linoleum must be protected with a binder of wood, metal, or rubber. Similar protection must always be given linoleum at doorways, where the underfloor is not countersunk or there is no threshold against which to butt the linoleum.

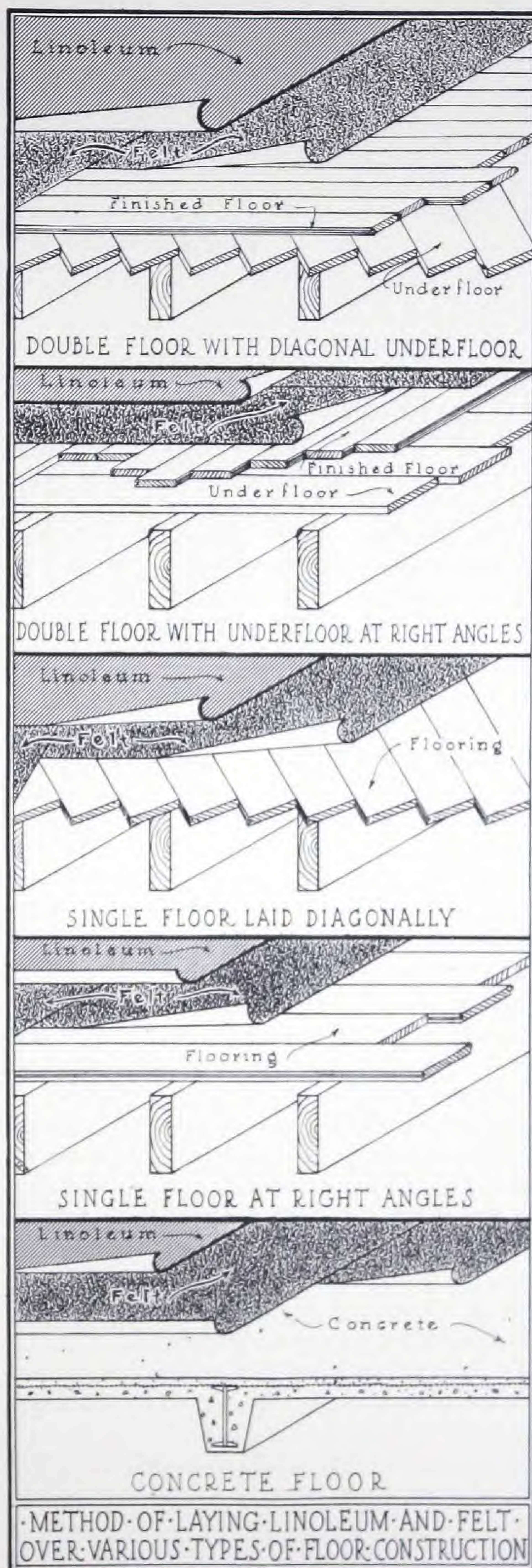
(9) The general contractor (or owner) must make provision for maintaining a temperature of 70° Fahr. in all rooms where linoleum floors are to be laid.

(10) For filling cracks and seams in concrete underfloors, plaster of Paris may be used. Wide cracks in wood underfloors should be filled with strips of wood. Narrow cracks may be filled with putty or a heavy bodied linoleum paste.

Recommendation for Damp-proofing Concrete Floors in Contact with the Ground

Where a concrete slab on which linoleum is to be installed is in direct contact with the ground or is so close to the ground that sufficient ventilation cannot be obtained, some means should be provided for damp-proofing the slab. If no provision for damp-proofing the slab is made and linoleum is cemented to the concrete, trouble is apt to develop. There is always a certain amount of free lime in concrete, and the moisture from the ground, traveling to the top of the slab by capillary action, carries with it the solution of lime. The combined action of the moisture and lime solution will destroy the bond between the linoleum and concrete, and eventually damage the linoleum. In some instances the following method of damp-proofing such a slab has been found satisfactory:

"The concrete base shall be brought up to within three inches of the finished floor line and shall have a trowelled finish. On this base the cement contractor shall install a waterproof membrane consisting of five plies of saturated roofing paper, each ply laid in hot asphalt and the top of the roofing paper mopped with the same material. All end and side laps of the membrane shall be not less than four inches wide. The membrane shall be flashed up the outside walls and columns to a point at least three inches above the finished grade line. On top of the waterproof membrane the cement contractor shall furnish and install a cement wearing floor not less than three inches thick."



Specification No. 1

Laying Linoleum or Cork Carpet over Wood

(1) The linoleum contractor shall furnish all labor and materials to cover the entire floor surfaces in the rooms herein specified, or indicated on the drawings with Armstrong's Linoleum, as follows:

(List rooms, gauges, and patterns here.)

(2) Before any materials are laid, the linoleum contractor shall satisfy himself that all wood floors are thoroughly nailed to all bearings, that the surfaces are true and even, and that there are no loose knots, nails, or other protrusions that might cause damage to the finished linoleum floors.

(3) The linoleum contractor shall furnish a satisfactory crack and seam filler and fill all joints between boards and shall clean the surface free from dirt or foreign matter before proceeding. He shall also satisfy himself that the floors are thoroughly dry.

(4) The linoleum contractor shall furnish enough approved gray, unsaturated, deadening felt, approximately $\frac{1}{8}$ -inch thick and weighing $11\frac{1}{2}$ pounds per square yard, to cover the entire area to be floored with linoleum. He shall also furnish enough Armstrong's Linoleum Paste (nonwaterproof) to paste the entire body of the deadening felt to the floor and the main body of the linoleum to the deadening felt lining (spreading capacity about 100 square feet to one gallon). He shall also furnish enough Armstrong's Waterproof Linoleum Cement to seal completely all the seams and edges of the linoleum (spreading capacity 50 to 60 square feet to one gallon).

(5) Cover the entire floor surface to which linoleum floors are to be applied with the deadening felt, extending the felt to within $\frac{1}{4}$ -inch of the walls or baseboards all around. Place the first strip along the side wall and at right angles to the boards, and trim the ends to fit properly. Turn back one end of the loose felt about half way and apply to the floor with a linoleum paste spreader, a good, even coat of Armstrong's Linoleum Paste (nonwaterproof), sufficient to insure firm adhesion of the deadening felt to

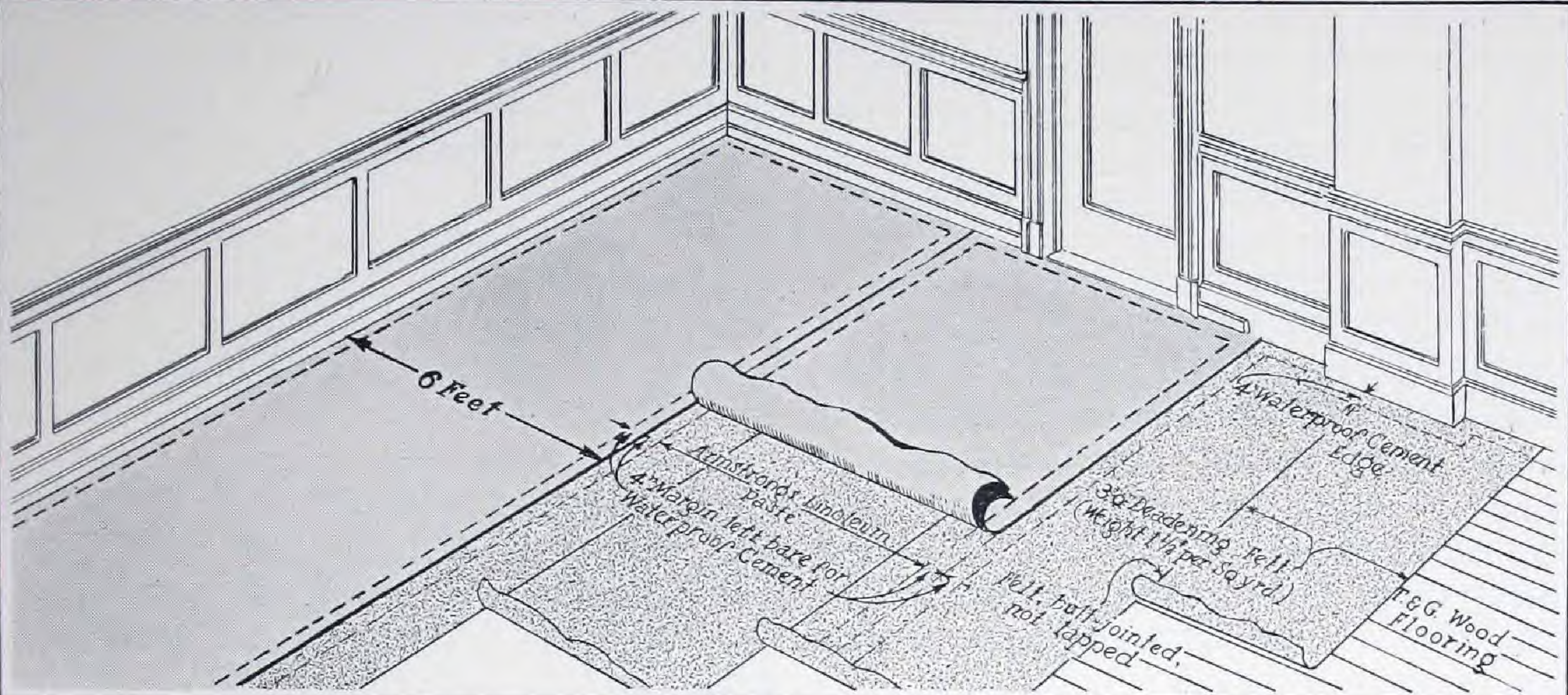
the floor. Replace the pasted half in position on the floor and press and smooth out all air blisters. Paste the other half of the strip in like manner and proceed to cover the entire surface in the same way, carefully butting the edges of the deadening felt and being sure that there are no portions lapping. Cut and neatly fit around all built-in furniture, pipes, door jambs, and thresholds. Each strip of deadening felt when completely pasted is to be rolled and smoothed out with a 150-pound iron roller to insure firm and uniform adhesion.

(6) All linoleum is to be delivered on the job in the original packages as shipped by the manufacturer, and to be kept on end in a room heated to at least 70° Fahr. with the wrappings on the roll cut, for at least 48 hours before unrolling. Every yard of battleship linoleum is to have the brand name and gauge printed plainly on the back.

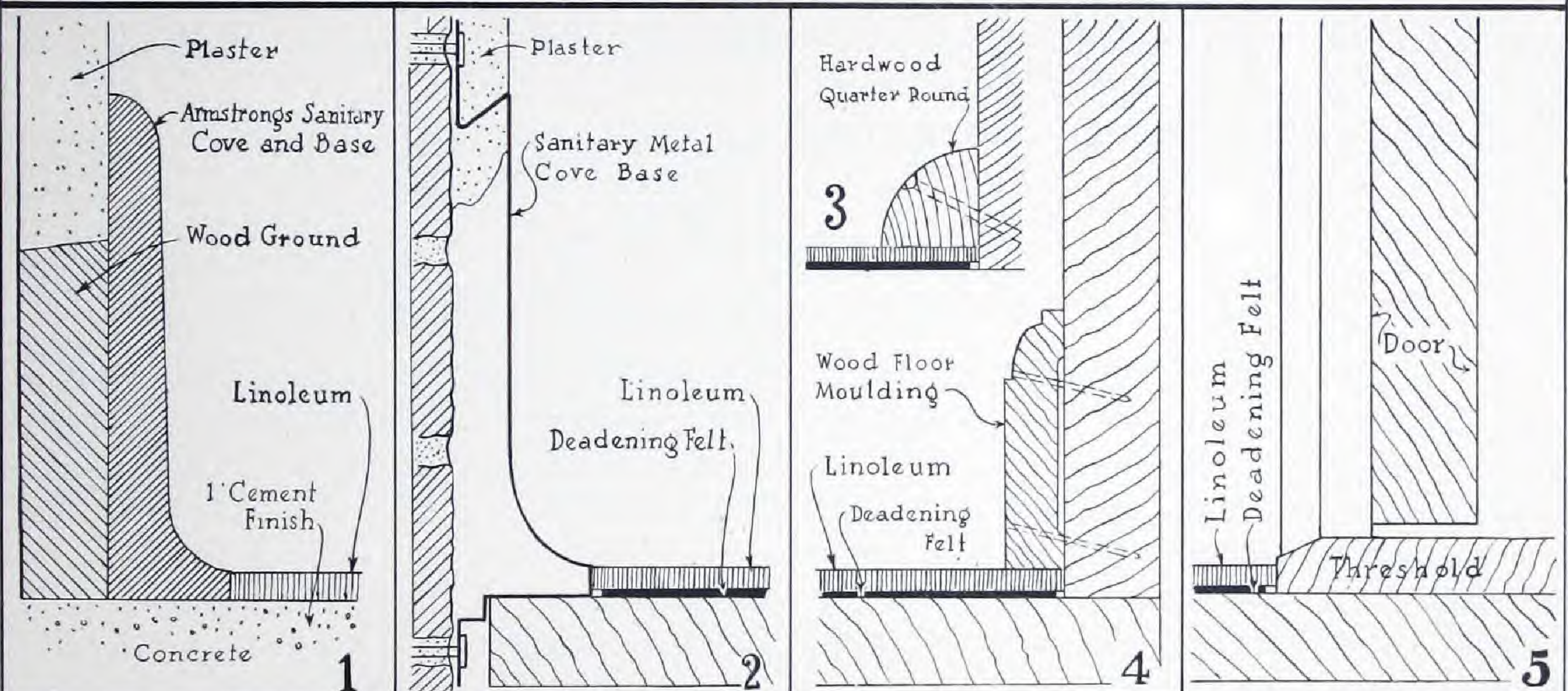
(7) The linoleum contractor shall advise the architect (or owner) sufficiently in advance so that a temperature of at least 70° Fahr. is supplied and maintained in all rooms where linoleum floors are to be applied, and shall not proceed with his work unless this condition exists.

(8) After the deadening felt has been secured to the floor and the work and materials thus far have been inspected and approved by the architect (or owner) who shall also be given an opportunity to inspect the name and gauge marks on the back of the linoleum, the linoleum contractor shall proceed to sweep the surface of the deadening felt lining clean and to lay the linoleum as follows:

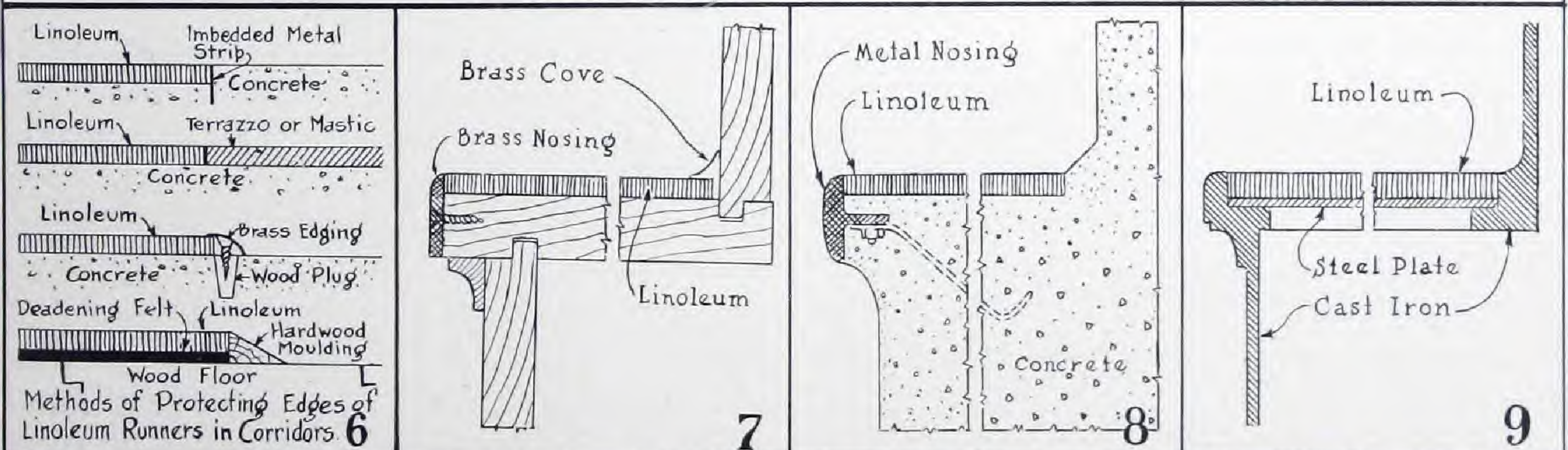
(9) The strips of linoleum for each room are to be cut to measure. As each strip is put in position, the workman shall chalk mark the deadening felt lining to indicate where the seam will fall. The first strip of linoleum is to be fitted into place, pressing the edges firmly against the baseboard or wall and fitting neatly and snugly around all pipes, etc. Turn back the linoleum about half way, and cover the entire surface of the felt



PERSPECTIVE VIEW SHOWING METHOD OF LAYING
LINOLEUM OVER FELT ON WOOD FLOOR



METHODS OF FINISHING LINOLEUM AT BASE
OVER WOOD AND CONCRETE FLOORS



3" SCALE DETAILS SHOWING LINOLEUM LAID OVER WOOD,
CONCRETE AND METAL STAIRS WITH VARIOUS KINDS OF NOSINGS

DRAWN BY
SWEET'S CATALOGUE
SERVICE, INC..

FINISHING OF ARMSTRONG'S LINOLEUM AT
BASEBOARDS AND ON STAIR TREADS

SCALE - 6" = 3' DWRG
EQUALS 1" = 0'
DATE - AUG. '22 1

to within 4 to 6 inches of the chalk mark and the walls (which space must not be pasted) with Armstrong's Linoleum Paste applied as specified in Paragraph 5. Proceed in the same manner with the other end of the strip and with each succeeding strip.

(10) Match pattern or figures carefully, and snugly butt edges of inlaid linoleum.

(11) The seams of all battleship, granite, jaspé linoleum, and cork carpet are to be made tight by lapping the edges of the several strips approximately $\frac{1}{2}$ -inch when pasting them to the under layer of felt and then cutting through both thicknesses simultaneously with a sharp linoleum knife, or linoleum seam cutting tool.

(12) When the top surface of the deadening felt lining has been properly coated with paste, and each strip of linoleum carefully fitted and rolled with a 150-pound iron roller, all air blisters completely smoothed out, and

the paste given sufficient time to set properly, the edges of the linoleum strips are to be lifted sufficiently to apply a good coat of Armstrong's Waterproof Linoleum Cement on both sides of the seams and around all edges, pipes, etc., so that it will completely fill the space back to the paste. The $\frac{1}{4}$ -inch margin between the edges of the felt strips and the walls, in particular, is to be well filled with waterproof cement, in order to insure a watertight bond between the floor and the linoleum. As soon as the seams are cemented, they are to be thoroughly rolled with a 150-pound roller, until the cement has begun to set firmly, or the seams and edges of the linoleum may be weighted with sandbags.

(13) Clean the entire surface and remove with alcohol any and all waterproof cement that may appear on the face of the linoleum and turn the entire job over to the owner in a perfectly clean and workmanlike condition.

Specification No. 2

Laying Linoleum or Cork Carpet over Concrete Floors with Felt Lining

(1) Use paragraph 1, Specification No. 1.

(2) Before proceeding with the work, the linoleum contractor shall ascertain the condition of the concrete and assure himself that it is thoroughly dry and that the surface is true and even. He shall test the floor for moisture by laying six pieces of linoleum six inches square, face downward on the concrete, one in each corner of the room and the others near the middle, weighting them with brick or other weights, and allowing them to remain at least eighteen hours. If when the pieces are taken up, moisture appears on the surface of concrete or linoleum, the room shall be kept heated four or five days and the test repeated. When no moisture follows this procedure, the contractor will proceed with the work as herein specified.

(3) Clean the surface free from dirt or foreign matter and fill all cracks with plaster of Paris.

(4) Use paragraph 4, Specification No. 1.

(5) Cover the entire floor surfaces to which linoleum floors are to be applied with

the builders' deadening felt, extending the felt to within $\frac{1}{4}$ -inch of the walls or baseboards all around. Place the first strip along the side wall, and trim the ends to fit properly. Turn back one end of the loose felt about half way and apply to the floor with a linoleum paste spreader, a good, even coat of Armstrong's Linoleum Paste (nonwaterproof), sufficient to insure firm adhesion of the deadening felt to the floor. Replace the pasted half in position on the floor and press and smooth out all air blisters. Paste the other half of the strip in like manner and proceed to cover the entire surface in the same way, carefully butting the edges of the deadening felt and being sure that there are no portions lapping. Cut and neatly fit around all built-in furniture, pipes, door jambs, and thresholds. Each strip of deadening felt when completely pasted is to be rolled and smoothed out with a 150-pound iron roller to insure firm and uniform adhesion.

(6, 7, 8, 9, 10, 11, 12, and 13). Use same paragraphs as in Specification No. 1.



FIG. 1. PREPARING TO PASTE FELT TO FLOOR.



FIG. 2. SPREADING PASTE ON FLOOR TO RECEIVE FELT.



FIG. 3. SPREADING PASTE ON FELT TO RECEIVE LINOLEUM.



FIG. 4. CUTTING LINOLEUM SEAM BY HAND.



FIG. 5. CUTTING LINOLEUM SEAM WITH TOOL.



FIG. 6. SEALING SEAM WITH WATERPROOF CEMENT.

Steps in Laying a Permanent Linoleum Floor

FIG. 1. FIRST STEP. Strips of felt are cut to run crosswise to direction of floor boards. Only a small quantity of non-waterproof paste is poured out at one time, to prevent setting before felt is in place.

FIG. 2. SECOND STEP. Paste is applied with a saw-edged paste spreader. A skilled workman can make time by spreading for two strips of felt at one time. Application of felt to pasted floor closely follows the spreading, to insure good adhesion. Care must be exercised to make sure that the strips of felt are butted exactly at the seams, as overlapping will show up as ridges in the finished linoleum floor. Felt is well rolled as put down to insure intimate and thorough contact of the paste at all points.

FIG. 3. THIRD STEP. Paste is spread evenly on felt, but only to within 4 or 5 inches of lines where seams in linoleum will come. In putting down linoleum, edges of strips are overlapped about one-half inch. Linoleum is well rolled as fast as applied to pasted felt to insure good contact and perfect adhesion of the paste to both felt and linoleum.

FIG. 4. FOURTH STEP. Seams may be cut by hand if workman uses a straight edge or chalks a line on the overlapping edges of linoleum strips. The linoleum knife cuts through both edges at one stroke, making a perfectly fitting seam. In cutting, the knife must be held exactly upright, to insure a tight-fitting seam.

FIG. 5. By using this tool, into which a linoleum knife is inserted, seams can be cut in plain linoleum much faster and more uniformly than by hand.

FIG. 6. FIFTH STEP. After seams are cut the edges of the adjoining linoleum strips are lifted and the unpasted portions of felt are given a good coat of waterproof cement. This seals the seams against moisture and insures a better looking floor.

FIG. 7. FINAL STEP. Immediately after closing seams with waterproof cement they are rolled thoroughly with a 150-pound roller until the cement is set and the seams are perfectly sealed.

Full directions for laying linoleum are contained in the booklet, "Detailed Directions for Laying and Caring for Linoleum." A copy of this booklet should be in the hands of the architect, linoleum contractor, and each linoleum layer. Booklet is sent free upon request.



FIG. 7. ROLLING LINOLEUM SEAMS.

Specification No. 3

Laying Linoleum or Cork Carpet over Concrete Floors, without Felt Lining

- (1) Use paragraph 1, Specification No. 1.
- (2) Use paragraph 6, Specification No. 1.
- (3) Use paragraph 7, Specification No. 1.
- (4) The linoleum contractor shall furnish enough Armstrong's Linoleum Paste (non-waterproof) to paste the main body of the linoleum to the floor (spreading capacity about 100 square feet to one gallon). He shall also furnish enough Armstrong's Waterproof Linoleum Cement to seal completely all seams and edges of the linoleum (spreading capacity 50 to 60 sq. ft. to one gallon).
- (5) Use paragraph 2, Specification No. 2.
- (6) Use paragraph 3, Specification No. 2.
- (7) After the concrete floor has been inspected and approved as to dryness and smoothness by the architect (or owner) who shall also be given an opportunity to inspect the name and gauge marks on the back of the linoleum, the linoleum contractor shall proceed to lay the linoleum as follows:
 - (8) The strips of linoleum for each room are to be cut to measure. As each strip is put in position, the workman shall chalk mark the floor to indicate where the seam will fall. The first strip of linoleum is to be fitted into place, pressing the edges firmly against the baseboard or wall and fitting neatly and snugly around all pipes, etc. Roll up one end of the linoleum about half way, and cover the entire surface of the floor up to within 4 to 6 inches of the chalk mark and the walls (which space must not be pasted) with Armstrong's Linoleum Paste applied evenly with a linoleum paste spreader, and in sufficient quantity to insure firm adhesion between linoleum and the floor. Proceed in the same manner with the other end of the strip and with each succeeding strip, rolling each strip thoroughly with 150-lb. iron roller.
 - (9) Use paragraph 10, Specification No. 1.
 - (10) The seams of all battleship, granite, jaspé linoleum, and cork carpet are to be made tight by lapping the edges of the several strips approximately 1/2-inch when pasting them to the floor and then cutting through both thicknesses simultaneously with a sharp linoleum knife or linoleum seam cutting tool.
 - (11) When the floor has been properly coated with paste and each strip carefully fitted and rolled with a 150-pound iron roller, all air blisters completely smoothed out and the paste given sufficient time to set properly, the edges of the linoleum strips are to be lifted sufficiently to apply a good coat of Armstrong's Waterproof Linoleum Cement on both sides of the seams and around all edges, pipes, etc., so that it will completely fill the space back to the paste. As soon as the seams are cemented, they are to be thoroughly rolled with a 150-pound roller until the cement has begun to set firmly, or the seams and edges of the linoleum may be weighted with sandbags.
 - (12) Use paragraph 13, Specification No. 1.

Specification No. 4

Waxing and Polishing New Linoleum Floors

- (1) The linoleum contractor shall furnish enough approved liquid wax (Johnson's, Old English, or equal) to give one good application to linoleum floors installed under the foregoing specifications.
- (2) The linoleum contractor shall proceed to clean, wax, and polish all linoleum floors in the following manner:
 - (3) Clean the linoleum floors thoroughly with tepid water and a mild soap, such as Ivory. The linoleum is then to be rinsed with clear water and dried with a cloth.
 - (4) Wax the linoleum by pouring a small quantity of the liquid wax on the heel of a clean, dry floor mop. Go over the floor, working the mop first crosswise and then lengthwise, to insure a thin, even distribution of wax over the whole floor.
 - (5) After the wax has had several minutes to dry, polish the linoleum by going over it with a weighted floor polishing brush or an electric floor machine, equipped with Tampico brush. This finish is to be hard, dry, glossy, and nonslippery to the tread.

Specification No. 5

Laying Linoleum on Stair Treads

All stair treads (wood, metal, or concrete) which are to be covered with linoleum must be brought to a true, even, and level surface. The edge of each step must be protected by nosing, to be installed before linoleum is laid.

List stair treads to be covered with linoleum in paragraph 1, Specification No. 1 or 2.

(1) The contractor shall make sure that treads are dry before laying linoleum.

(2) Coat the stair tread with waterproof cement and apply the linoleum, cut to exactly the proper size to butt neatly and accurately against nosing, riser, and stringers. See that all air blisters are smoothed out. Weight the treads with bricks or sandbags.

(3) After several hours, or when the cemented linoleum has set and is fully dry, remove weights and clean linoleum.

Specification No. 6

Installing Sanitary Cove and Base

Preparatory to installing Armstrong's Linoleum Sanitary Cove and Base, a wood ground about three inches high and not less than $\frac{7}{8}$ -inch thick, to serve as a backing for the cove and base, must be set in all around the room at the underfloor level. This wood ground must be nailed securely in place by the proper contractor. The plaster, or wall finish, must be brought down flush with the wood ground. The surface of the walls must be made perfectly true and even.

(1) The linoleum contractor shall furnish sufficient Armstrong's Linoleum Sanitary Cove and Base, in wall sections and corner pieces, to go around all the walls of the rooms listed or indicated in the drawings. He shall also furnish sufficient Armstrong's Waterproof Linoleum Cement to install the cove and base (1 gallon per 100 lineal feet).

(2) Before installing the cove and base,

the linoleum contractor shall see that the intersections of walls and floors are free from dust and dirt and are perfectly dry.

(3) Apply a good even coating of Armstrong's Waterproof Linoleum Cement to the back only of the cove and base and fit the sections one after another tightly in position against the wood ground. See that sections and corner pieces make smooth, tightly butted joints with each other.

(4) Cove and base shall be held firmly against the wall until the cement is set, with boards braced against the cove and base and anchored by cleats on the underfloor.

(5) After the cement is set, remove the bracing boards and clean the cove and base, smoothing up rough edges with sandpaper.

(When the linoleum floors are laid, the linoleum shall be butted against the cove and the joint sealed with waterproof cement.)

Specification No. 7

Installing Linoleum Floors with Borders

Add to Specification No. 1 or 2:

(12a) Linoleum floors with field of Armstrong's Linoleum No. and border of Armstrong's Linoleum No., shall be installed in the following rooms:

(Here list rooms to have bordered floors).

(12b) A field of the linoleum shall be cut and centered so that it extends to within inches of the walls on the sides and inches on the ends. The strips of linoleum comprising the field shall then be pasted solidly to the felt to within four

inches of the edges of each strip, as described in paragraphs 9 and 10. Roll the linoleum.

(12c) The border shall be neatly trimmed to butt against both field and walls. It shall then be cemented down to the felt with Armstrong's Waterproof Cement. The four-inch margin around the field left unpasted shall be cemented simultaneously with the cementing of the border. Cement seams between linoleum strips of the field. All seams and the border shall be thoroughly rolled until the cement begins to set.

How to Get Better Service through Intelligent Care

NEXT to good laying, the care accorded a linoleum floor is largely responsible for the service it gives. Scrubbing with soaps and cleaning agents strong in alkali is injurious to linoleum and shortens its life very materially. Ordinary wet mopping frequently does little more than smear the dirt about over the surface and results in a dingy look.

Instead of trying to keep a linoleum floor clean by daily mopping with a strong soap solution, a far more pleasing appearance and much longer life may be had by waxing and polishing the linoleum when it is first laid and thereafter keeping up the polish regularly. Waxing eliminates the dark unsightly streaks along the baseboards and around heavy furniture which the mop cannot remove. In fact, not only does waxing and polishing give the linoleum a beautiful, uniformly colored polish, but it reduces daily care to the minimum task of going over the floor with a soft brush or broom to remove surface dust and then restoring the polish with a cloth or polishing brush.

For large areas of linoleum, it is economical to invest in regular linoleum maintenance equipment. This equipment consists of an electric floor-scrubbing and -polishing ma-

chine, mops, pails, cloths, and a supply of linoleum soap and liquid floor wax. Everything can be bought for less than \$150.

Satisfactory floor machines are the International, made by the International Floor Machine Company, 220 W. 19th Street, New York City, and the Utility, made by the Kent Co., Rome, N. Y.

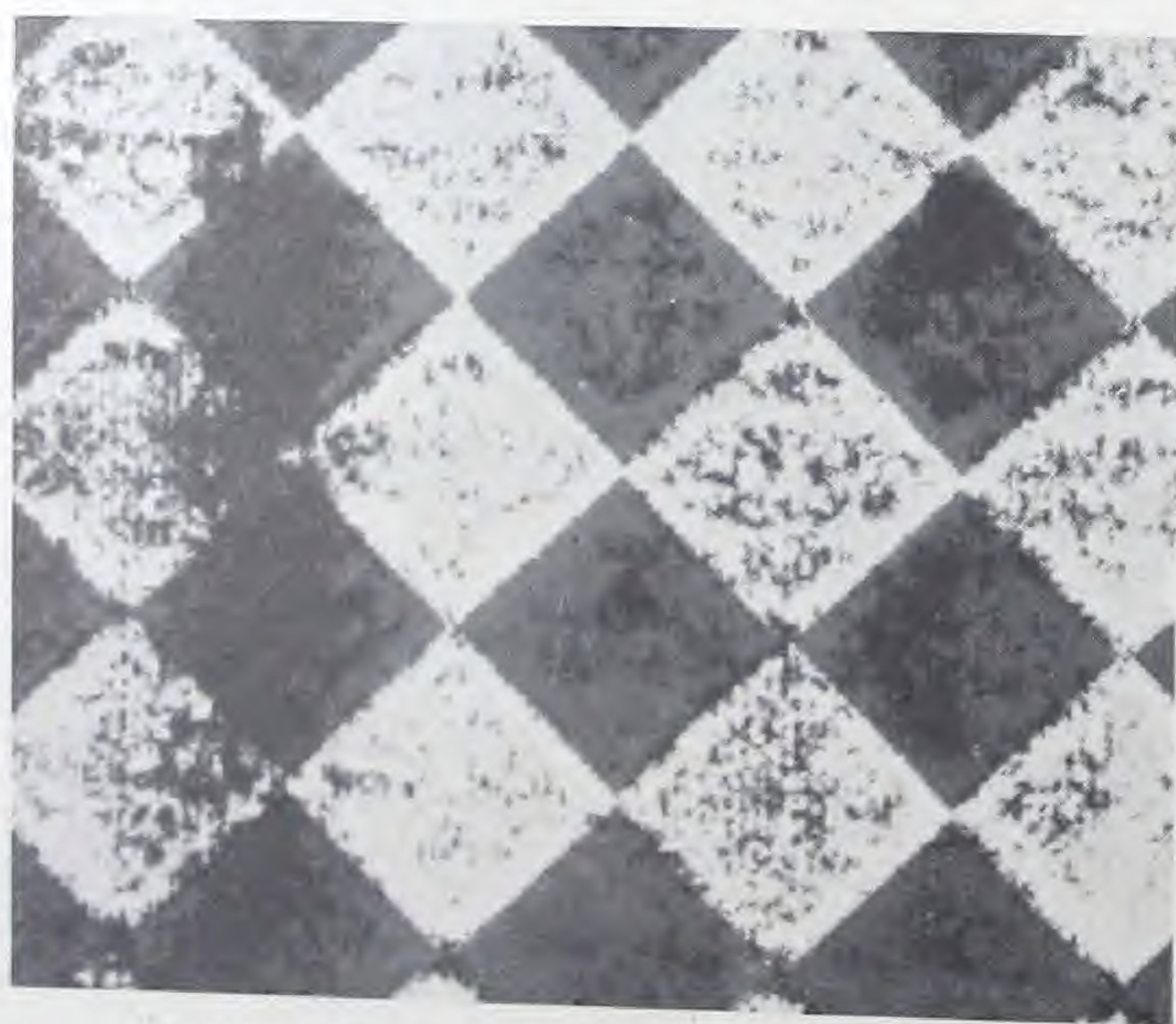
Standard floor waxes recommended for linoleum include: Old English Linoleum Wax, A. S. Boyle Co., Cincinnati; O'Cedar Wax, Channell Chemical Co., Chicago; and Johnson's Prepared Wax, S. C. Johnson & Son, Racine, Wis.

Do not use alkaline soaps or scrubbing powders. They will harm any finely finished wood or linoleum. Certain advertised soaps and washing powders, particularly, are not good for linoleum. These cleaning agents show alkaline reaction or contain caustics, and are positively injurious to paint, varnish, linoleum, or any substance made largely of linseed oil. In fact, more harm is done to linoleum by the use of too strong cleaning agents than in any other way. The only safe practice is to avoid altogether the use of cleaning powders and strong scouring soaps.

Automobile soaps, such as Miller's Auto Soap, Flaxoap, and Mobo Soap, prepared especially to clean the high varnish finish of automobiles, are recommended for linoleum. The milder household soaps such as Ivory, and a special cleaner, Shine-All, may be used.

The process of cleaning, waxing, and polishing a linoleum floor is shown on page 15.

After a linoleum floor has been waxed and polished, daily cleaning is simple. The smoothly waxed finish prevents dirt being ground into the linoleum. Wet mopping is entirely unnecessary. Every evening the caretakers simply remove the surface dirt and dust that has collected during the day by sweeping with a fine hair broom. Rewaxing and polishing with the machine may be necessary on the main traveled areas once or twice a month. A complete scrubbing should be required not more than two, three, or four times a year.



DO NOT USE STRONG SOAPS ON LINOLEUM

This piece of Armstrong's Printed Linoleum was washed thirty-two times with a widely known soap powder. The cleaner had worn through the oil paint design to the plain brown linoleum body below in eight washings. Note that thirty-two washings have practically ruined the pattern, so far as appearance is concerned. A list of soaps that can be used safely on linoleum will be sent to any architect upon request.



FIG. 1. SCRUBBING DIRTY LINOLEUM.



FIG. 4. POLISHING WAXED LINOLEUM.



FIG. 2. REMOVING DIRT AND WATER.



FIG. 3. WAXING CLEAN LINOLEUM.



FIG. 5. DAILY CARE OF WAXED LINOLEUM.

How to Scrub, Wax, and Polish Linoleum

FIG. 1. FIRST STEP, SCRUBBING. Pour out a small quantity of lukewarm suds, made with a mild soap, and run the machine slowly over the floor until the dirt has been thoroughly loosened.

FIG. 2. SECOND STEP, REMOVING DIRT AND WATER. An ordinary cotton mop can be used, but a metal floor pan and rubber squeegee are most satisfactory. The dirty water is drawn into the pan with the squeegee as illustrated.

FIG. 3. THIRD STEP, WAXING. Paste wax may be used but liquid wax is easier to apply. Pour out a small quantity of wax on the heel of a clean, dry cotton mop. Or on a large floor, pour the wax into a bucket and immerse the cotton mop in it. Mop the linoleum until a thin coating of wax has been spread over the whole area. Work the mop first one direction, then the other, to insure complete coverage.

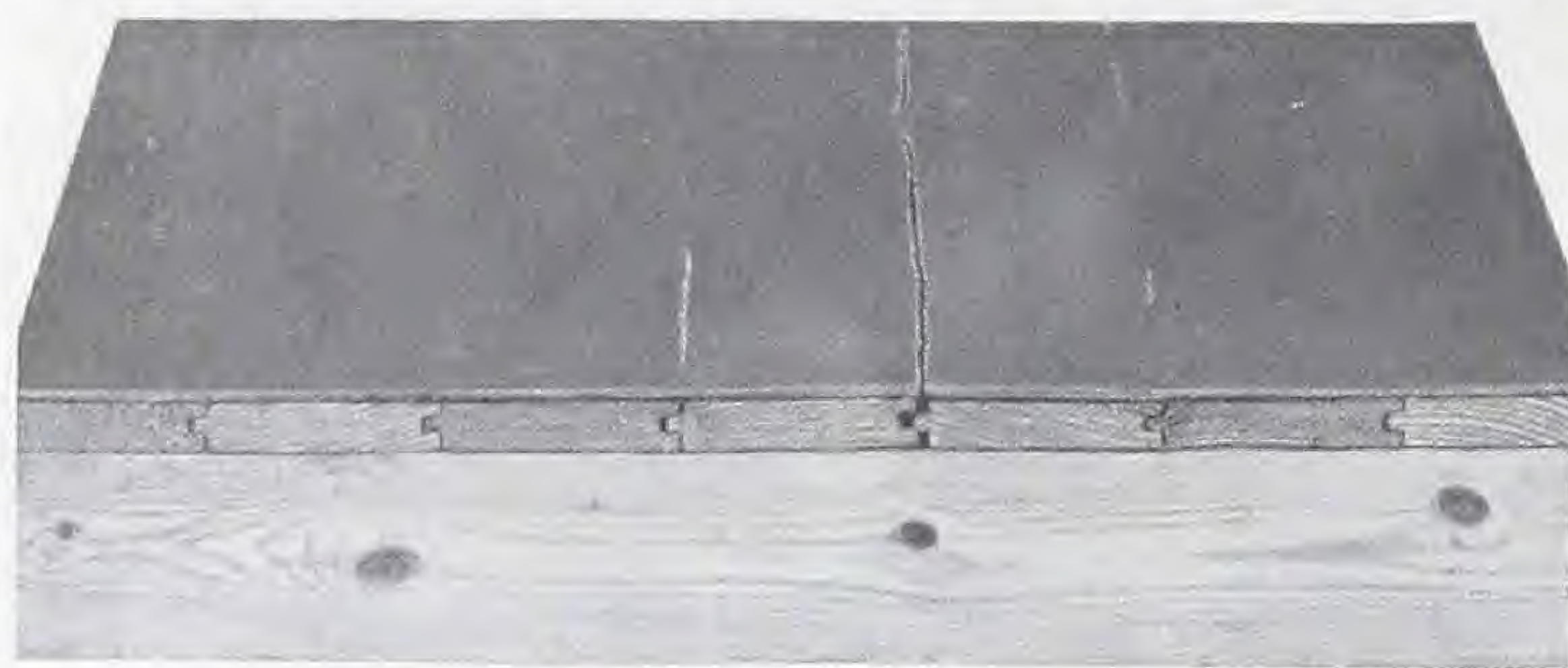
FIG. 4. FOURTH STEP, POLISHING. Put the polishing brush on the machine and run over the floor slowly, first one direction, then the other. This brushes the wax into the linoleum and starts the polish. To finish, use the polishing pad until the wax has been brought up to a hard, dry, nonslippery gloss.

FIG. 5. DAILY CARE. The janitor can keep a waxed and polished linoleum floor clean and bright by going over it every evening with a fine hair broom.

N. B. Electric floor machine used in these illustrations is the International, Model B, manufactured by the International Floor Machine Company, 220 West 19th Street, New York City.

Reasons for Cementing Linoleum over Deadening Felt

LINOLEUM itself is more than fifty years old. Yet the laying of linoleum as a permanent floor is a comparatively new development. Most people have in the past thought of linoleum as a temporary floor covering, instead of a real floor, largely because methods of laying had not been devised to



This section of a linoleum floor illustrates the damage that frequently results when linoleum is cemented directly to floor boards. In this test case, the boards shrank and the cracks between them opened, when the section of floor was placed in a warm, dry room for several days. The linoleum could not hold the floor boards together, and as may be seen here broke along three of the cracks where the strain was too great.

insure maximum wear and best appearance.

For years linoleum has been laid by the handy man in the local store, and not by really skilled mechanics trained to do the work properly. For this reason, the traditional way to lay linoleum has been simply to unroll the linoleum on the floor, trim it to fit the walls, and match the seams. The limitations of this method of laying can be seen at a glance. Not only is the appearance as a rule unsatisfactory, but unsightly bulges and breaks are apt to develop.

As new linoleum has a tendency to expand when unrolled and walked on, this buckling can be guarded against only by cementing the linoleum to the floor. *Cementing linoleum directly to a wood floor, however, is likely to cause trouble.* The boards of a wood floor are subject to contraction and expansion, according to changes in temperature and humidity. The boards contract in winter when the dry furnace heat is on, and the cracks widen. Linoleum cemented solidly to such a floor is subjected to such a strain by this contraction, that it frequently breaks in lines directly over the floor board cracks.

To protect the linoleum from this movement, and at the same time hold it securely to the floor, a lining of deadening felt should

be laid between floor and linoleum. The whole area of this felt is pasted to the floor, the main area of the linoleum pasted to the felt, and seams sealed with waterproof cement.

Then when the cracks in the wood floor open up, the fibrous texture of the deadening felt permits it to expand or even break at its under surface, while its upper surface remains firmly cemented to the linoleum.

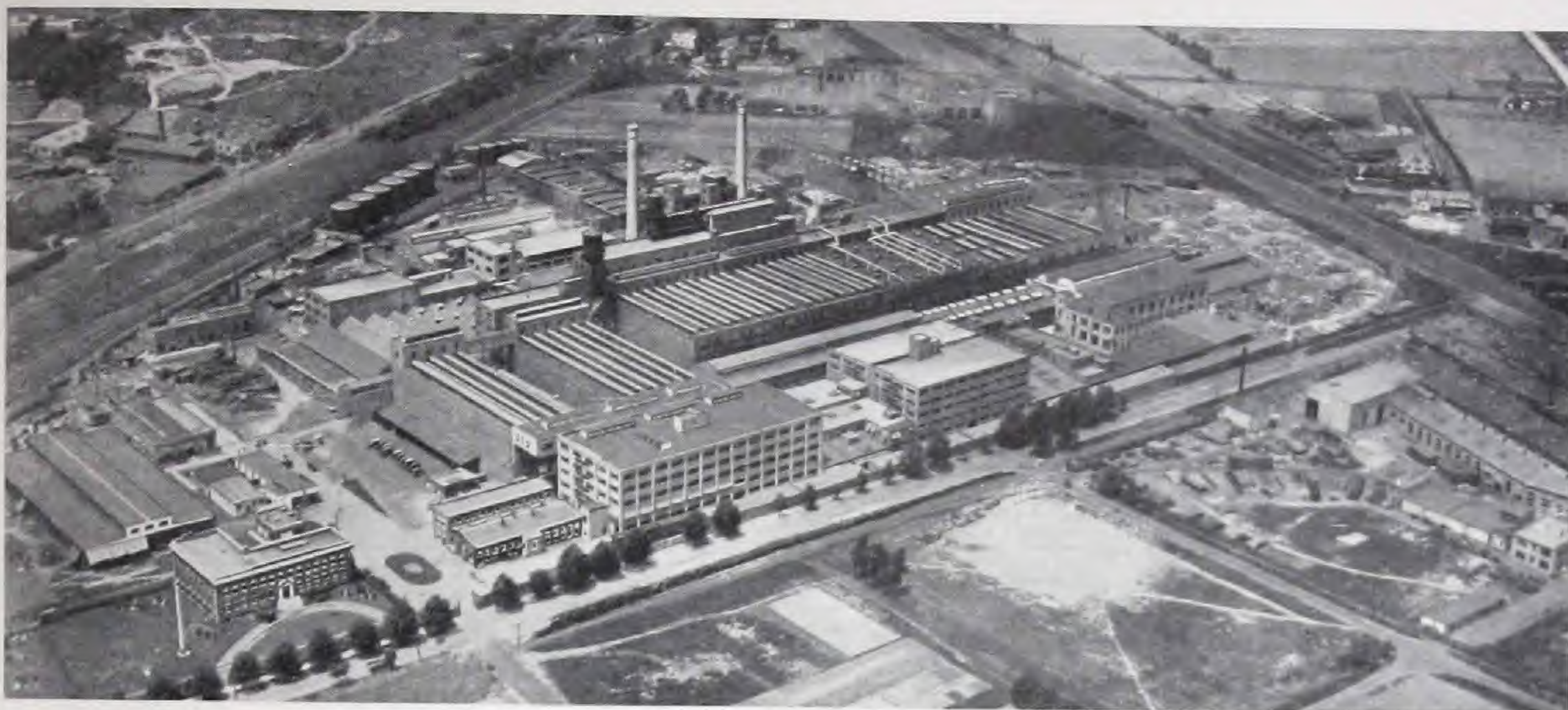
Laying linoleum over a felt lining has been practised by good linoleum contractors for years and the results are uniformly satisfactory, wherever the work has been done properly. The linoleum becomes a firm, lasting floor, watertight, and to all appearances seamless. In addition, the deadening felt lining makes the floor more resilient, hence quieter and more comfortable.

A final advantage is that the felt makes it possible often to use linoleum in temporary quarters and later remove it to a permanent location, as good as new. Linoleum cemented directly to a floor can rarely be removed without tearing. A strong upward pull on linoleum laid over felt, however, parts the felt lining and allows the removal of the linoleum entire. Felt adhering to the floor and the back of the linoleum can be soaked off with warm water. Then the linoleum can be relaid to look as good as new.

The use of a felt lining for linoleum on concrete is optional. As expansion and contraction in the concrete floor slab is negligible, protection of the linoleum with felt is not so necessary as in the case of wood. Deadening felt does add resilience and quietness, and makes it easy to take up the linoleum.



Here is a section of floor, with the linoleum cemented firmly to the wood, but with a lining of deadening felt between. This section was placed in the warm room alongside the one shown above, and although the boards shrank and the cracks opened, the linoleum was not broken at any point. The protective layer of felt absorbed the strain of the board movement and left the linoleum uninjured and firmly attached to the floor.



The forty-five-acre Armstrong's Linoleum Factory at Lancaster, Pa.

Manufacturing Standards and Policies

BOTH in equipment and manufacturing methods the 45-acre linoleum plant of the Armstrong Cork Company at Lancaster, Pa., is the most modern in America.

Only the best obtainable ingredients are used in the manufacture of Armstrong's Linoleum. Most of the cork comes from the Company's own factories here and abroad. Every car of linseed oil and all color pigments are tested in the laboratory. Exceptional attention is paid to the designing of the patterns and the selection of the colorings. The whole manufacturing process is under chemical and physical control.

The factory organization of the Armstrong Cork Company consists of thoroughly experienced linoleum experts, many of whom were trained abroad where linoleum traditions were founded and successfully developed.

Armstrong's Linoleum is carefully tested at every step of the making, and the final inspections of the finished product are especially rigid. (For a description of some of these tests, see p. 18).

Every yard of material is stamped on the burlap back with the Circle A trade-mark and the name Armstrong's Linoleum. All Battleship Linoleum is also stamped on the back with the gauge marking, whether 1/4-inch, 6-mm., 3/16-inch, or Light Battleship. Where there are slight imperfections in Armstrong's Linoleum, in which case the goods are marketed at a discount, the word "Seconds" is plainly marked under the trade-mark on the burlap back.

Every piece of Armstrong's Linoleum, sold as perfect, is fully guaranteed, and the Company will make good any material that should prove defective in manufacture.

Armstrong's Battleship Linoleum meets the exacting new specifications of the United States Government for linoleum, recently approved by the Federal Specification Board, drawn on results of tests made by the Bureau of Standards of the United States Department of Commerce.

In fact, the standards maintained at the Armstrong factory are more severe than those laid down by the Government. Full data giving results of tests to which Armstrong's Battleship Linoleum has been subjected, including the Federal Specifications, will be furnished upon request to any architect, building contractor, or owner.



The gauge marking and trade-mark are readily distinguished in this reproduction of a section of the burlap back of Armstrong's Battleship Linoleum.

Tests That Insure Standard Quality

AS described on page three, all "green" linoleum is hung in "stoves" to cure or season for a period of from two to six weeks. Upon this seasoning largely depends the durability of the finished linoleum.

Until recently, the chief test to determine the maturity of linoleum in the "stoves" was the "educated thumbnail." A workman pressed a practised thumbnail into every run of linoleum to see if the piece of goods was sufficiently seasoned to stand up under the wear of actual use. Naturally this test was not conclusive.

Constant effort to improve and standardize quality at the Armstrong factory has developed a set of accurate mechanical tests to which every run of linoleum is now subjected. The result is that Armstrong's Linoleum is standardized on a quality far higher than has ever before been deemed possible.

Three of the tests illustrated here are:

1. *The Penetrometer Test.* Applied to the "cement," which is made by mixing oxidized linseed oil with gums and resins, and later used to bind the ground cork on the burlap backing. Electrically operated needles are pressed into samples of the elastic "cement,"

and the exact degree of hardness is registered on the dial. This test insures proper consistency of the binder for mixing with the pulverized cork.

2. *The Abrasion Test.* Before leaving the "stoves," samples of every "run" of linoleum are given this test to see whether or not the material is thoroughly seasoned. The rounded nose of the vertical shaft is revolved rapidly on the linoleum for 60 seconds under a standard pressure. If the linoleum is properly matured, no abrasion of the surface is noticeable.

3. *The Indentation Test.* Applied to all battleship linoleum. The plunger (about one-quarter inch in diameter) under 80 pounds pressure is applied against the linoleum for 60 seconds. Provided the material is thoroughly seasoned, there is no surface breaking and any slight indentation will disappear.

Any architect who is interested in learning more of the process of manufacture is invited to visit the plant at Lancaster, Pa., and by personal inspection learn of the many precautions and safeguards taken to make Armstrong's Linoleum a thoroughly dependable, high-grade product.

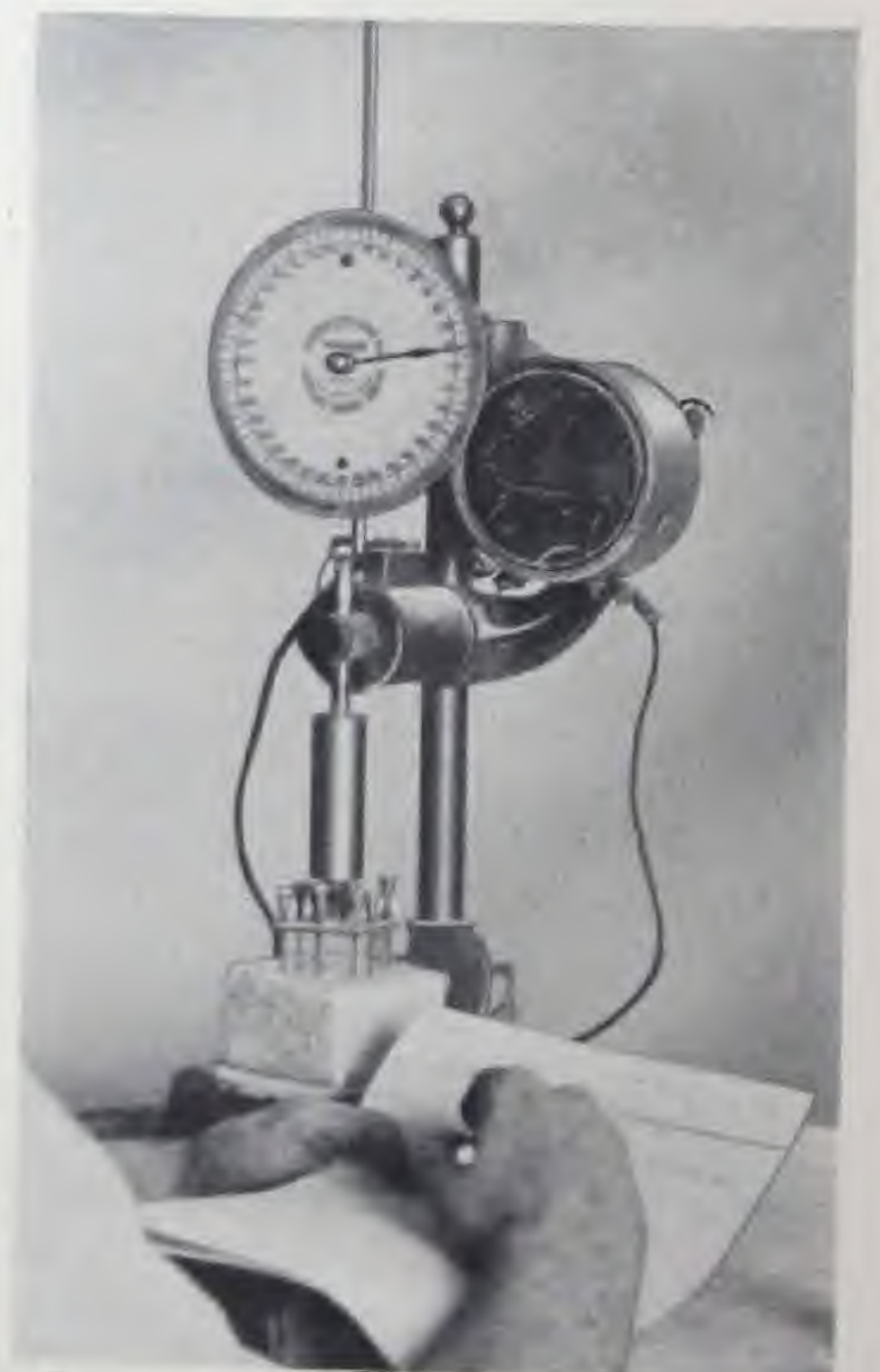


MAKING THE TESTS

Penetrometer Test on the right. The electrically operated needles are being pressed into the block of linoleum "cement." The pressure required to force the needles into the "cement," a measure of its hardness and elasticity, is registered on the dial above.

Abrasion Test on the left. The nose of the vertical shaft, resting on the piece of battleship linoleum under 150 pounds pressure, is rapidly revolved for 60 seconds. Thus in one minute the linoleum is subjected to as hard wear as comes in many months from footsteps.

Indentation Test above. A piece of linoleum is being indented by the weighted plunger. The two pieces of linoleum in the operator's hands have already been subjected to this test. That on the right passed the test, the one on the left did not.





Here is shown the effect of burning on Armstrong's 1/4-inch Battleship Linoleum, a 12x12x36-inch crib made of one-inch square yellow pine sticks soaked in kerosene. The linoleum, cemented over heavy felt to the concrete subfloor of a specially constructed test house, was seriously burned over an area 54x38 inches only and carbonized over an area 41x31 inches. The fire died out completely in 38 minutes.

Linoleum and the Fire Hazard

AS compared to wood floors, linoleum radically reduces the volume of combustible material required for flooring purposes in a fireproof building. Linoleum can be cemented to a concrete base, thus eliminating wooden sleepers, usually embedded in the concrete where wood floors are laid.

Scientific fire tests, performed under exactly similar conditions on both linoleum and maple floors, have further shown that linoleum does not burn so readily nor hold fire so long as wood. These properties are clearly illustrated by the photographs on this page.

Linoleum is given a credit of 7 per cent. over wood floors in fire insurance rates on fireproof buildings, by the Western Actuarial

Bureau. This rating places linoleum in the same classification with concrete, terrazzo, and ceramic tile.

That actual usage bears out the results of tests performed in the laboratory may be seen in a report made by the Board of Chicago Fire Underwriters, regarding a fire on March 15, 1922, in the building of the C. B. & Q. Railroad, Chicago:

"Maple floor surfacing on wooden nailing strips above the eighth floor was entirely consumed, except that on ninth and tenth floors small sections remained, but these were charred.

"It was particularly noticeable that on one floor, which was surfaced with cork linoleum, the damage to structure, such as plastered ceilings, etc., was not so great as that on which wood floor surfacing was used."



The maple floor shown here, laid in the same house and submitted to an exactly similar test to that made on the battleship linoleum above, was badly scorched over an area 72x60 inches. The maple flooring, white pine underflooring and embedded yellow pine sleeper, were completely burned over an area 48x36 inches. The floor was still smoldering next morning, seventeen hours after the fire was started.

Where to Use Linoleum

WHEN properly installed, in accordance with the Armstrong specifications, linoleum becomes a "permanent" floor, with certain individual characteristics not to be obtained with any other floor material.

Permanent linoleum floors are:

1. Sanitary, because they are
 - a. Nonabsorbent
 - b. Smooth
 - c. Free from cracks
 - d. Germicidal
2. Easily cleaned
3. Comfortable, because they are
 - a. Resilient
 - b. Quiet
 - c. Warm
 - d. Odorless
4. Nonslippery
5. Handsome and artistic
6. Durable
7. Economical, because they are
 - a. Reasonable in first cost
 - b. Inexpensive to maintain
8. Adapted to fireproof construction
9. Easy to install

Wherever floors must be handsome, quiet, and resilient, and at the same time sanitary, easily cleaned, and durable, linoleum should receive consideration.

On this page are listed some of the types of buildings for which linoleum floors are especially adapted, with recommendations of the kinds and gauges of Armstrong's Linoleum best suited to each. For a more detailed discussion of the adaptability of linoleum, see the pages that follow.

For places where much dirt is tracked in it is well to remember that light colors show footmarks less than dark shades. From this standpoint, patterns with strong contrasts in color will be found especially desirable.

Gauges Recommended for Specific Uses

Following are the kinds and gauges of Armstrong's Linoleum recommended:

For Business Buildings—Including Banks, Lofts, Office Buildings, Restaurants and Stores: $\frac{1}{4}$ -inch, 6-mm., or 3/16-inch battleship, or 3/16-inch jaspé, for corridors and areas subjected to heavy traffic; A gauge plain or jaspé; marble inlaid, inset tile inlaid, inset marble tile inlaid, or straight line inlaid.

For Educational Buildings—Including Gymnasiums, Laboratories, Libraries, Museums, Observatories, Schools, and Colleges: $\frac{1}{4}$ -inch, 6-mm., or 3/16-inch battleship; 3/16-inch jaspé; cork carpet where a silent and resilient floor is the first consideration.

For Hospitals and Institutions—Including Homes, Asylums, Hospitals, and Sanitariums: $\frac{1}{4}$ -inch, 6-mm.,

or 3/16-inch battleship for corridors and areas subjected to heavy traffic; A gauge plain; 3/16-inch or A gauge jaspé; straight line inlaid.

For Industrial Buildings— $\frac{1}{4}$ -inch, 6-mm., or 3/16-inch battleship; 3/16-inch jaspé.

For Public Buildings—Including Capitols, City Halls, Town Halls, Court and Custom Houses, Comfort Stations, Fire and Police Stations, Jails, Post Offices: $\frac{1}{4}$ -inch, 6-mm., or 3/16-inch battleship; 3/16-inch jaspé.

For Religious and Memorial Buildings—Including Churches, Chapels, and Parish Houses, Convents and Monasteries: $\frac{1}{4}$ -inch, 6-mm., or 3/16-inch battleship for areas where traffic is very heavy; cork carpet where a silent and resilient floor is a first consideration; A gauge plain; 3/16-inch or A gauge jaspé.

For Residential Buildings—Including Apartments, Flats, and Tenements, Dwellings, Dormitories, and Hotels: $\frac{1}{4}$ -inch, 6-mm., or 3/16-inch battleship, or 3/16-inch jaspé, for corridors and areas where traffic is exceptionally heavy; A or B Gauge plain or jaspé; inset tile inlaid; inset marble tile inlaid; straight line inlaid; marble inlaid.

For Social and Recreational Buildings—Including Auditoriums and Halls, Clubs, Lodges, Natatoriums, Bath Houses, and Locker Buildings, Theaters, Service Buildings: $\frac{1}{4}$ -inch, 6-mm., or 3/16-inch battleship; 3/16-inch jaspé; cork carpet where a silent and resilient floor is a first consideration.

Where Linoleum Is Not Suitable

Linoleum should not be laid on open porches, roof gardens, or other floors directly exposed to the weather. While a linoleum floor may be made practically watertight, there is always the danger that rain beating in may cause moisture to creep in under the linoleum at the seams or edges.

Linoleum should never be used for floors of shower baths. Water beating onto the linoleum or standing on it may seep through the seams and damage the linoleum.

Linoleum is not recommended for basements. When concrete floor and walls have been perfectly waterproofed, and sometimes when the basement floor level is high enough above the ground water level, and the floor is built on a deep cinder fill, so as to leave it absolutely dry, linoleum floors in basements have been known to prove satisfactory. *As a general rule, however, the architect or owner who specifies linoleum for the basement does so at his own risk.*

Linoleum should not be laid on any floor in direct contact with the earth, unless the floor has been thoroughly dampproofed or is known never to be damp, even in wet weather.

Residences and Apartments

A LINOLEUM floor is one of the modern conveniences that help to sell a residence or rent an apartment; that is, of course, the permanent floor—cemented firmly over a felt lining—not merely bradded down as a temporary floor covering in the old fashioned “kitchen style.”

Linoleum of today is suitable not only for the kitchen, bath, and entry ways, but for bedrooms, dining-room, living-room, and sun porch as well. In fact, greater advancement has been made in developing new linoleum designs and colorings for “best” rooms than in any other department of the industry.

Modern linoleum gives the architect and interior decorator an opportunity to make something of the floor. Both in color and texture linoleum is different. In plain colors there are brown, green, dark gray, light gray, tan, blue, and black; in two-tone jaspés there are light brown, dark brown, light gray, dark gray, green, and blue; in inlaids there is a multitude of designs in carpet, tile, mosaic, and granite effects and miscellaneous geometric patterns. Representative designs and colorings are shown in the colorplates at the back of this folder, while the complete line of patterns may be inspected by writing for the Pocket Size Pattern Book.

Linoleum floors in the home save hours of housework. The smooth, non-absorbent, seamless surface does not catch dirt, and when waxed, linoleum is easily kept looking its best with a dry floor mop or dust brush, followed with a soft cloth or



A corridor in the Cloister Apartments, San Francisco, floored with Armstrong's Straight Line Inlaid No. 350, finished with border of plain black linoleum. 6750 sq. ft. of linoleum cemented over felt by Van Fleet-Freear, Inc., of San Francisco. H. C. Smith, San Francisco, architect.

polisher. Due to the natural resilience of linoleum, these floors are also agreeably quiet, comfortable underfoot, and nonslippery, even when waxed and polished.

As the ordinary wear on the floors of the home is not heavy, the A, B, and C gauges of Armstrong's Linoleum are recommended

for this use. Special advice as to patterns and colorings of linoleum appropriate to carry out any desired color effect may be had by writing to the Armstrong Bureau of Interior Decoration. Requests receive the attention of a skilled interior decorator.



Sun parlor in the home of E. E. Beidleman, Dauphin, Pa., formerly Lieutenant Governor of the state. 1350 sq. ft. of Armstrong's Straight Line Inlaid Linoleum No. 350, cemented over felt to wood underfloor by Dives, Pomeroy & Stewart, of Harrisburg.



Office of W. A. Heitman Company, Realtors, Los Angeles, Calif. Floored with Armstrong's Marble Inlaid, No. 76, finished with black border. 3500 sq. ft. of linoleum cemented over felt lining to concrete underfloor by Van Fleet-Freear, Inc.

Business and Private Offices

IN selecting a floor material for business and private offices, the architect or owner is guided primarily by appearance. Another characteristic of a good office floor, no less important, is that it must be easy to maintain its handsome appearance and keep it always clean.

In appearance, linoleum makes a floor entirely in keeping with the finest of mahogany appointments and the richest of fabric rugs. Few other floor materials offer such a wide range of colorings and designs from which to

choose. The new Marble Inlaids particularly are good for large offices, giving an effect that can seldom be obtained except with floor materials costing several times the price of linoleum.

You may prefer to select a plain color or a jaspé, or an inlaid in carpet or tile pattern, surrounding it with a harmonizing plain color border. In fact, you will find Armstrong's Linoleum designs and colorings to blend well with almost any scheme of decoration.

Appearance is further enhanced and the floor made easier to clean by waxing the linoleum. The smooth and even surface, brightly polished and practically seamless, is kept in splendid condition by daily sweeping with a floor brush and polishing with machine or weighted brush.

Cemented to the concrete subfloors of the modern fireproof office building, linoleum is the ideal finish flooring. Its small volume of combustible material, which is slow burning like the cork of which it is made, gives linoleum a favorable fire insurance rating.

Another excellent property is the resilience of linoleum. This feature makes for quiet and foot-comfort, and prevents the floor from becoming slippery even when waxed and highly polished.

A or B gauge linoleum, if well laid and properly cared for, is frequently heavy enough for a private or business office. If

the wear is not hard, this alone makes possible a considerable saving in the price of a "battleship" thickness. In these gauges all seven plain colors and six jaspés may be had. (See the colorpages at the back of this folder for suggested office designs.)



Business office of the Lauzier-Wolcott Company, Stock Brokers, Spokane, Wash. Floored with Armstrong's Inset Tile Inlaid, No. T42, finished with black border. Linoleum cemented over felt lining to wood underfloor by the Crescent Department Store, of Spokane, Wash.

General and Public Offices

THE chief recommendation of linoleum for the large general office or public building is its durability and economy of maintenance. One of the largest telephone companies in this country, for instance, which has made a careful analysis of the cost of maintaining thousands of square feet of linoleum floors in its buildings, finds that the complete cost of maintenance by waxing and polishing the linoleum as recommended on pages 14 and 15, averages but a quarter-cent per square foot monthly. Furthermore a piece of linoleum which had been in daily use for twenty-two years in one of this country's buildings, and maintained by waxing, showed in the micrometer a loss from twenty-two years' wear of but .004-inch in thickness.

Resilience is a second requisite of a general office floor. The natural elasticity of ground cork and oxidized linseed oil is preserved to a large extent in finished linoleum. Thus clerks and stenographers can work more efficiently on linoleum, because the floors are quiet and restful to stand and walk on.

Linoleum, moreover, is well adapted to the fireproof construction of a modern office building. It can be applied directly to the concrete floor slabs, thus eliminating the necessity of embedding wood nailing sleepers and at the same time requiring a much smaller volume of combustible floor material than wood. In this connection, also, read the report on fire tests, page 19.

As the wear in large general and public offices is usually severe, only the heavier gauges of linoleum should be spe-



Corridor in the offices of the American La France Fire Engine Co., Inc., New York City. Floored with Armstrong's Inset Marble Tile Inlaid Linoleum, No. M60. Cemented to concrete underfloor by The S. Finck Company, of N. Y. City.

cified. Available in the three thicker battleship gauges, 1/4-inch, 6-mm. and 3/16-inch, are the following colors: No. 20, brown; No. 21, green; No. 22, dark gray. Armstrong's Jaspé also is available in the 3/16-inch gauge in dark gray, No. 15, and dark brown, No. 17.

Armstrong's Linoleum Sanitary Cove and Base may be used very appropriately with

linoleum floors in offices. Turn to page 4 for a description of this new feature to make battleship linoleum floors complete. For specifications to install Armstrong's Sanitary Cove and Base see page 13. Samples sent to any architect free upon request



Offices of the Oregon Fire Relief Association, in McMinnville, Ore. Floored with Armstrong's Parquetry Tile Inlaid, No. P80. 2000 sq. ft. of linoleum cemented over felt to concrete underfloors by the Cork Floor Products Co., of Portland, Oregon.

Educational Buildings

WAXED linoleum stands the tread of scuffling feet; hence its adaptability for school room floors. It is easily applied by cementing to the troweled concrete underfloors of new buildings, or may be installed just as satisfactorily over a felt lining to renew the worn, squeaky, wood floors when old buildings are remodeled.

The resilience of the ground cork and oxidized linseed oil not only softens footsteps, but helps absorb other disturbing sounds. Thus linoleum-floored corridors are not so noisy during intermissions, and in the study halls and class rooms linoleum helps to quiet the restless scraping of children's feet, the creaking of desks, and other irritating noises that tend to interfere with good work.

Linoleum tends to reduce the fire hazard, and also conforms to strict sanitary regulations, because it can be cemented directly to the concrete floor slabs, forming practically a seamless, nonabsorbent, watertight floor. Furthermore, linoleum possesses certain germicidal properties. A German scientist, Dr. Ludwig Bitter, working in the Hygienic Institute in Kiel, on inlaid linoleum several years old, found that virulent typhosus and streptococci or pus formers were killed in eight hours and that all impure microorganisms brought in by dirty shoes were killed. This bactericidal power of linoleum is due to the fact that acid gases, including formaldehyde and formic acid, strong bactericidal agents, are constantly being given off as a result of the linoxyn formation (i. e., oxidized linseed oil.)



Corridor in the Hutchins Intermediate School, Detroit, Mich. 18,450 sq. ft. of Armstrong's 6-mm. Brown Battleship Linoleum, No. 20, cemented over felt on concrete underfloors by Burnham, Stoepel & Co. Malcolmson, Higgenbotham & Palmer, architects.

For school use Armstrong's Linoleum in the "battleship" thicknesses should be specified— $\frac{1}{4}$ -inch, 6-mm. or $\frac{3}{16}$ -inch. The three colorings, brown, green, and dark gray, afford variety enough to select a floor to harmonize with practically any scheme of decoration. The $\frac{3}{16}$ -inch jaspé in dark gray or dark brown is preferred by many architects,

as its two-tone effect relieves the monotony of the plain solid color of battleship linoleum.

For running track, basketball courts, and exercise floors in the gymnasium Armstrong's Cork Carpet is admirably suited as a resilient nonslippery surfacing.



Kindergarten room in Dickinson Street School, Grand Rapids, Mich. 7200 sq. ft. of Armstrong's $\frac{1}{4}$ -inch Brown Battleship Linoleum, No. 20, laid in this building by Herpolsheimer Co., of Grand Rapids, Mich. Cemented over felt to concrete underfloors.



Sun parlor in the Southern Pacific Hospital, Houston, Texas, floored with Armstrong's Inset Tile Inlaid, No. T42. 900 sq. ft. of linoleum cemented over felt by G. A. Stowers Furniture Company, of Houston, Texas.

Hospitals and Sanitariums

SANITATION and cleanliness rank high among the characteristics desired in a hospital floor. Linoleum, therefore, is particularly well suited for wards, corridors, rest rooms, dining-rooms, and offices. Cemented firmly to the concrete underfloor either with or without felt lining, and then waxed and polished, linoleum is smooth and practically seamless, non-absorbent and water-tight. There are no cracks in which dust and germs can lodge, and cleaning is easy.

In addition, linoleum is de-



Ward in the Essex County Tuberculosis Hospital, at Middleton, Mass., floored with Armstrong's A Gauge Brown, No. 20. 22,500 sq. ft. of linoleum cemented to concrete underfloors by Leslie Dry Goods Co., of Haverhill, Mass. John Bickford, Boston, Mass., architect.

clared by scientists to possess germicidal powers which tend to destroy dangerous bacteria and other germs. In this connection, read the report of investigations of Dr. Ludwig Bitter, page 24.

Linoleum floors aid in making wards, rest rooms, and corridors quiet. The natural resilience of the cork and oxidized linseed oil, ingredients of all genuine linoleum, softens footsteps and helps deaden other sounds.

For the sun rooms, wards and other rooms where the wear is not extraordinarily severe, the beautiful marble inlaid, inset tile inlaid, and inset marble tile inlaid may well be used with appropriate borders of plain or jaspé linoleum. See the colorpages at the back of this folder for suggestions. For the corridors and places where the wear is severe it is wise to specify Armstrong's Battleship Linoleum, or Jaspé in the 3/16-inch gauge. The latter gives a pleasing variation from the solid plain coloring.

Linoleum maintenance in the hospital is a simple problem when the floors are properly waxed and polished. An electric floor machine should be used for the polishing, and the operator should make sure that the wax is applied sparingly and evenly to produce a hard, nonslippery polish. Such a finish is beautiful and easily cleaned.

Armstrong's Linoleum Sanitary Cove and Base is especially recommended for use with

linoleum floors in hospitals. This cove and base insures a maximum of cleanliness around the edges of the floor and adds greatly to the appearance. See page 4 for a description and illustration of the cove and base. Upon request free samples will be mailed.



Bristol Pool Room, Los Angeles, Calif., floored with Armstrong's A Gauge Brown, No. 20, and A Gauge Black, No. 27. Floor laid out in panels, set off with black borders around tables. Linoleum cemented over felt by Van Fleet-Freear, Inc., Los Angeles.

Lodges and Club Rooms

LINOLEUM qualifies as an excellent flooring material for clubs, lodge rooms, billiard rooms, theatres, auditoriums, and similar rooms on three points especially. First, linoleum is serviceable, it stands up well under hard usage by crowds of people.

To judge the durability of linoleum, consider the wear to which it is subjected on the decks of our warships, such as the Pennsylvania, the Tennessee, or the California — vessels whose decks are covered with Armstrong's Battleship Linoleum.



Club room in Masonic Temple, Spokane, Wash., floored with Armstrong's Inset Marble Tile Inlaid, No. M68, finished with border of plain green, No. 21. 1080 sq. ft. of linoleum cemented over felt to wood underfloor by "The Crescent" Store of Spokane.

Second, cleaning a linoleum floor after the severe treatment given it at an evening's performance at the theater, a lecture at the auditorium, or a session of the club or lodge, is comparatively easy. Maintenance does not require a considerable amount of either time or expense, as waxing and polishing linoleum occasionally reduces daily cleaning to a minimum. Going over the floor with a soft floor brush every day, and polishing with an electric floor machine keeps the floor looking its best.

Finally, a linoleum floor helps speakers or performers, as it is sound deadening. The quiet resilience of natural cork and oxidized linseed oil is preserved in linoleum and not only softens the footsteps of late comers but also helps absorb other sounds, such as scraping feet, creaking chairs, etc.

For rooms in this type of building, where wear is heavy, Armstrong's Linoleum in the battleship thicknesses should be specified. The $\frac{1}{4}$ -inch or $\frac{3}{16}$ -inch gauge is sufficient to withstand ordinary wear, and the three colorings, No. 20, brown, No. 21, green, and No. 22, dark gray, afford a pleasing variety from which to choose a floor that will harmonize with the decorative scheme of any room. The $\frac{3}{16}$ -inch jaspé in dark gray and dark brown also offers an interesting variation from the plain solid color of battleship.

For the rooms where appearance is im-

portant, the Armstrong Inlaid offer pleasing designs which may readily be worked out into distinctive, unusual floors by the use of borders and panels of harmonizing or contrasting colors of plain or jaspé linoleum. (See the colorplates at back of folder)

Libraries and Churches

THE chief characteristics of linoleum and cork carpet which make these materials particularly suitable for library and church floors are their quiet resilience, pleasing appearance, nonslipperiness, and ease of maintenance.

In those rooms of libraries, churches, museums, etc., where quiet is the first consideration, underfoot silence can be insured by using floors of Armstrong's Cork Carpet.

Cork carpet is made of relatively large granules of cork, by a process which preserves the natural elasticity to a high degree. Cork carpet, therefore, not only softens footsteps, but helps absorb other sounds as well. For rooms where excessive dirt is not tracked in directly from the street and where heavy traffic is not an everyday occurrence, cork carpet is admirably adapted.

In rooms where wear is severe, however, and where the floor is in almost daily use, hence needs frequent cleaning, Armstrong's Linoleum in the battleship thicknesses is recommended. The three battleship colorings afford a choice to make the floor harmonize with practically any color scheme.

The resilience of both cork carpet and linoleum insures for the aged and young children, a firm footing on the churches aisles—a point that ought not to be overlooked in specifying a material for inclined auditorium floors. In the pews, linoleum or cork carpet affords comfort to bended knees, compared to the unyielding hardness of a bare wood floor.

The linoleum floor in church, library,



Auditorium of St. John's Evangelical Church, Grand Rapids, Mich., floored with Armstrong's 1/4-inch Brown Battleship, No. 20. 2300 sq. ft. of linoleum installed by Herpolsheimer Co., of Grand Rapids.

or museum should be waxed and polished. Then sweeping by the janitor with a brush after each time that the room is used removes dust and traffic marks. The polish is maintained by going over the floor with a polisher or a broom covered with a soft cloth.

Where floors of cork carpet are used, the best method of cleaning is with a soft hair broom. Sweeping removes the dust, and an occasional mopping or washing with mild soap and warm water will take up the dirt. Due to rough texture of cork carpet, neither waxing nor varnishing is recommended for floors of this material.



Second floor reading room of Pottsville, Pa., Public Library, floored with Armstrong's 1/4-inch Brown Battleship, No. 20. 4050 sq. ft. of linoleum cemented to concrete underfloors by Dives, Pomeroy & Stewart. Harris & Richards, architects.



Baur's Confectionery Parlor, Denver, Colo., floored with Armstrong's Marble Inlaid, No. 77. 1080 sq. ft. of linoleum cemented over felt to wood underfloor by the Denver Dry Goods Company, Denver, Colo.

Hotels and Restaurants

FOR the hotel and restaurant linoleum provides a floor at once handsome and striking, and at the same time long wearing and easy to maintain. For the lobby, dining-rooms, and other public rooms, the jaspés, inset tile, and inset marble tile inlaid, but more particularly, the new marble inlaid, surrounded by harmonizing borders of black, green, or gray linoleum, are appropriate.

Linoleum floors in hotels and restaurants should always be waxed. Polishing them brings out the real beauty of the colorings, and also lowers maintenance costs materially. The floors may then be cared for by the women who do the ordinary cleaning—simply dust off the dirt each morning and restore the polish with an electric floor machine. Compare with this the difficulty of cleaning all-over carpeted guest rooms, or dining-room floors, very frequently stained with cigar ashes, crumbs, grease, and liquids.

Waxed linoleum makes a splendid dance floor, and is found in up-to-date ball rooms, cabarets, restaurants, and dining-rooms.



Italian Gardens (restaurant) in the Davenport Hotel, Spokane, Wash., floored with Armstrong's Straight Line Inlaid, No. 350, finished with borders and panelings of plain black, No. 27. 4500 sq. ft. of linoleum cemented over felt by "The Crescent" Store of Spokane.



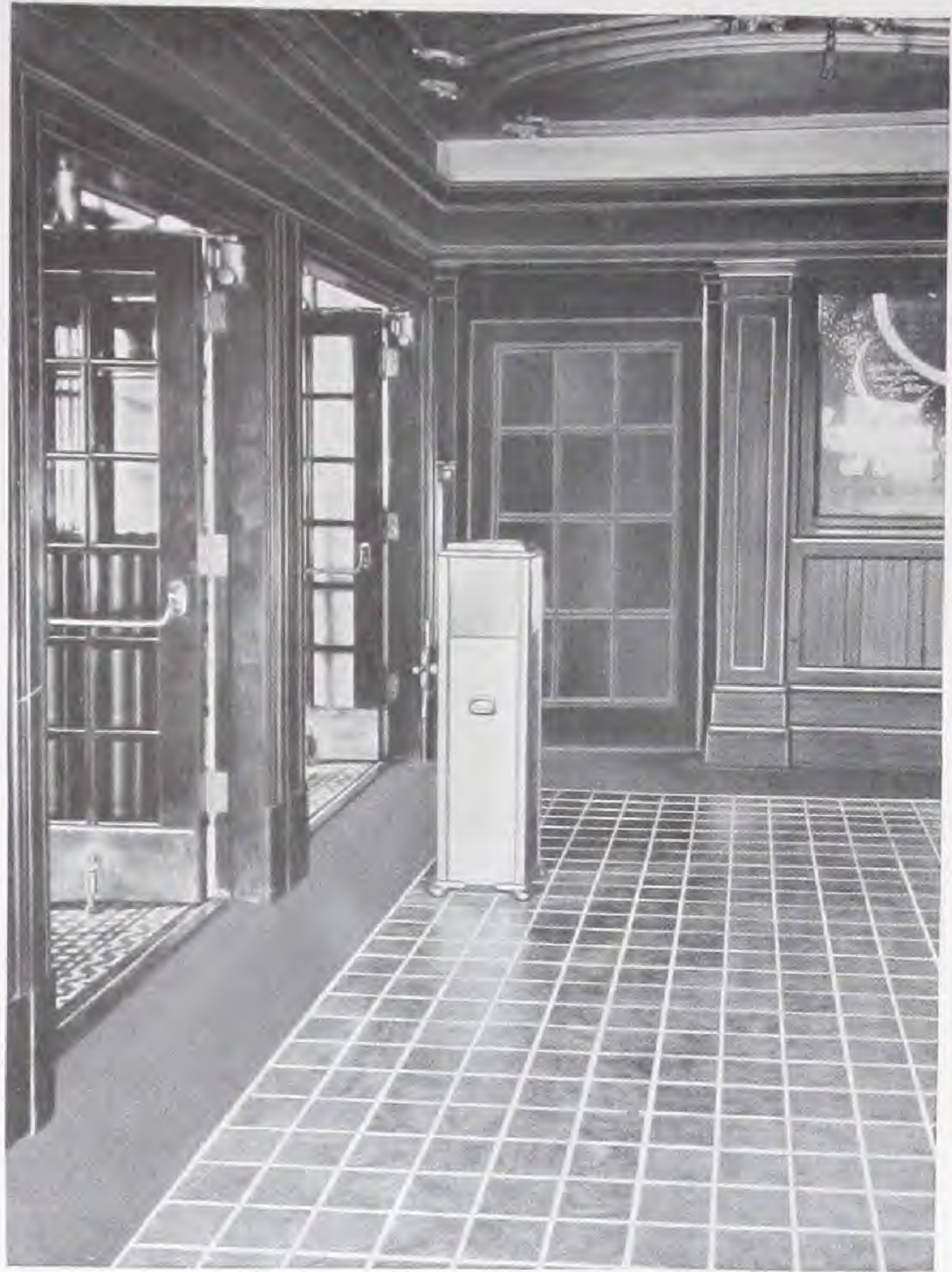
Dining room in the Stevens House (hotel), Lancaster, Pa., floored with Armstrong's Inset Tile Inlaid No. T42, finished with border of plain dark gray, No. 22. 2700 sq. ft. of linoleum cemented over felt to wood underfloors by the Piersol Co., Inc., of Lancaster, Pa.

Stores and Business Rooms

A HANDSOME floor may be a definite sales asset. People invariably prefer to buy where both merchandise and fixtures are in the best of taste. Whether it be in department store, specialty shop, confectionery store, flower shop, or shoe store, the attractions of handsome fixtures, neatly arranged counters and shelves, and courteous, well-dressed salespeople may be offset by a dull, unsanitary wood floor.

Armstrong's Linoleum suggests the remedy—a floor that will blend perfectly with the other beautiful appointments. A floor of black and white six-inch tile, an inset tile, or a marble inlaid design can actually transform an ordinary business room to a “smart” shop or a distinctive modern store. The use of a tile design with border is particularly effective.

Linoleum floors solve the cleaning problem. Going over them nightly with a waxed mop takes away the day's traffic marks and leaves linoleum floors bright and shining. Such floors also bring comfort to shoppers and salespeople, especially the latter, who have to stand so much.



Lobby of Sigma Theater, Lima, Ohio, floored with Armstrong's Inset Marble Tile Inlaid, No. M62, finished with border of gray jaspe, No. 12. Linoleum cemented over felt by "The Leader" store, Lima.



Grocery store of A. J. Mathieu, Los Angeles, Calif., floored with Armstrong's Inset Tile Inlaid, No. T42, finished with border of plain black, No. 27. 855 sq. ft. of linoleum cemented over felt to concrete underfloor by Van Fleet-Freear, Inc.



Showroom of the Bronx Buick Company, New York City, floored with Armstrong's Inset Tile Inlaid, No. T42, finished with border of plain black, No. 27. Linoleum cemented to wood underfloor by L. M. Blumstein, of New York City.

Representative Installations of Armstrong's Linoleum

Alabama

Jemison Seibels & Co., Inc., Birmingham
7065 sq. ft., 6-mm. Brown, laid in offices. Cemented over felt to concrete underfloors by Burger Dry Goods Co., Birmingham.

Arizona

Mandarin Cafe, Phoenix
675 sq. ft. Straight Line Inlaid No. 350 with black border. Cemented over felt by Dorris Heyman Furn. Co., of Phoenix.

Arkansas

The Sample Store (Dept. Store), El Dorado
2800 sq. ft. $\frac{1}{4}$ " Brown, laid on store floors by Union Furn. Co. Cemented over felt to pine underfloor.

Pfeifer Department Store, Little Rock
5400 sq. ft. $\frac{1}{4}$ " Brown, laid in Jewelry and Ladies' Department. Cemented over felt to wood underfloors.

California

Women's Athletic Club, San Francisco
13,500 sq. ft. Armstrong's Linoleum used. 6230 sq. ft. B Gauge gray jaspé No. 12 with plain black No. 27 borders used in corridors and rooms. Other rooms have floors of plain solid black; No. 350 (6-inch black and white squares) with double borders of black and light gray; blue jaspé, with 3" band of black all around walls. Cemented over felt to concrete underfloors.

Walk-Over Shoe Store, San Francisco
2500 sq. ft. Armstrong's Inset Tile Inlaid Linoleum. No. T41, with black border. Cemented over deadening felt lining on wood base.

Los Angeles Trust & Savings Bank
1900 sq. ft., 3/16" Brown, laid in employees' cafeteria, 1922. Cemented over felt to wood underfloor by Van Fleet-Freear, Inc., Los Angeles.

Colorado

Colorado State Capitol, Denver
27,000 sq. ft., $\frac{1}{4}$ " Brown, laid in offices, 1922. Cemented directly to concrete underfloors by Denver Dry Goods Co., Denver. Architects—Wm. N. Bowman & Co., Denver.

Lutheran Sanitarium, Denver
21,600 sq. ft., $\frac{1}{4}$ " Brown, laid 1921. Cemented directly to concrete underfloors by Denver Dry Goods Co., Denver.

Pueblo Medical Clinic, Pueblo
4500 sq. ft., $\frac{1}{4}$ " Brown, cemented over felt to wood underfloors by Calkins, White & Co.

Connecticut

Phoenix Insurance Company of Hartford
36,000 sq. ft., $\frac{1}{4}$ " Brown, laid in offices. Cemented over felt to concrete underfloors by Conradson & Hill, New York City. Architect—Benjamin W. Morris.

Connecticut Hospital for Insane, Middletown
45,000 sq. ft., A Gauge Brown. Cemented over felt to concrete underfloors by Conradson & Hill, New York City. Architect—D. K. Perry, New Britain, Conn.

Delaware

Walk-Over Shoe Store, Wilmington
3600 sq. ft., $\frac{1}{4}$ " Brown, laid 1920. Cemented over felt to wood underfloor by R. L. Foord Furniture Co., Wilmington.

District of Columbia

Kew Garden Apartments, Washington
13,500 sq. ft., B Gauge Gray Jaspé No. 12 with black borders, laid in hallways. Cemented over felt by Lansburgh & Bro. Architect—A. H. Sonneman.

Wallis Restaurant, Washington
9000 sq. ft., 3/16" Brown, laid in dining rooms, 1919. Cemented directly to composition floor by W. B. Moses & Sons, Washington.

Florida

Underwood Typewriter Co., Jacksonville
2025 sq. ft., 3/16" Brown, laid in offices, 1922. Cemented over felt to concrete underfloors by Furchgotts, Jacksonville.

King & Giffen, Miami
540 sq. ft., Inset Marble Tile Inlaid, No. M-62, laid in store. Cemented over felt to wood underfloors by Yelvington-Osborne Furniture Co., Miami. Architect—George L. Pfeiffer.

Georgia

Nunnally Candy Company, Atlanta
9000 sq. ft., $\frac{1}{4}$ " Brown, laid in sales offices, 1921. Cemented over felt to pine underfloors by Haverly Furniture Co., Atlanta. Architect—Heinty, Reid & Adler, Atlanta.

State Capitol, Atlanta
1440 sq. ft., A Gauge Brown, laid in Supreme Court Library. Cemented over felt to wood underfloors by Chamberlain, Johnson & DuBose.

City Hospital, Macon
2500 sq. ft., A Gauge Jaspé. Cemented directly to concrete underfloor by Burden, Smith & Co., Macon. Architect—Edward F. Stevens, Boston.

Idaho

Kelly's Club Cafe, Boise
1800 sq. ft. Inset Marble Tile Inlaid No. M61 cemented to wood underfloors.

Illinois

Illinois Telephone Co., Chicago
22,500 sq. ft., 6-mm. Brown, laid in retiring rooms and restaurant. Cemented to concrete underfloors.

Englewood High School, Chicago
2763 sq. ft., $\frac{1}{4}$ " Brown. Cemented over felt to concrete underfloors by O. W. Richardson & Co., Chicago.

Popular Mechanics Building, Chicago
22,500 sq. ft., $\frac{1}{4}$ " Green, laid in office, 1922. Cemented over felt to concrete underfloor by O. W. Richardson & Co., Chicago. Architects—Marshall and Fox.

Our Saviour Hospital, Jacksonville
1683 sq. ft., 3/16" Brown, laid in corridors, 1922. Cemented over felt to concrete underfloors by Andre & Andre, Jacksonville.

State Savings Loan & Trust Co., Quincy
876 sq. ft., $\frac{1}{4}$ " Green, laid 1922. Cemented over felt to wood underfloor by Jalbach-Schroeder Co., Quincy. Architect—Ernest M. Wood.

Indiana

Central Dairy Lunch, Indianapolis
1800 sq. ft., Straight Line Inlaid, No. 350. Cemented over felt to wood underfloor by Taylor Carpet Company, Indianapolis.

Studebaker Corporation, South Bend
31,500 sq. ft., $\frac{1}{4}$ " Brown, laid in offices by Robertson Bros., South Bend. Architects—Austin & Shombleau.

Iowa

St. Luke's Hospital, Davenport
18,000 sq. ft., 3/16" Brown. Cemented directly to concrete underfloors by Harned & Von Maur, Inc. Architects—Temple & Burrows, Davenport.

Mercy Hospital, Iowa City
1800 sq. ft., Gray Jaspé, laid in nurses' dormitory. Cemented over felt to concrete underfloor by White Furniture Co., Iowa City. Architects—Hatton, Holmes & Anthony, Cedar Rapids.

Kentucky

Puritan Apartment, Louisville
24,300 sq. ft., 3/16" Brown, laid in kitchens and closets. Cemented to wood underfloors by The Otis Hidden Co., Inc., Louisville. Architect—H. J. Scheirich.

Kansas

Providence Hospital, Kansas City
12,231 sq. ft., $\frac{1}{4}$ " Brown, laid in corridors. Cemented directly to concrete underfloors by Swenson Construction Co., Kansas City, Mo. Architect—Wight & Wight, Kansas City, Mo.

Pittsburg State Normal School, Pittsburg
36,000 sq. ft., 3/16", laid in Carney Hall. Cemented direct to concrete floor by Crosby Bros. Co., Topeka. Architect—R. I. Gamble.

Louisiana

Federal Land Bank, New Orleans
6300 sq. ft., $\frac{1}{4}$ " Brown, laid 1922. Cemented over wood and concrete by D. H. Holmes & Co., Ltd., New Orleans. Architects—Favrot & Livandais.

Seymour, Inc., New Orleans
1800 sq. ft., Inset Tile Inlaid, No. T42, laid in store, 1922. Cemented directly to concrete underfloors by D. H. Holmes & Co., Ltd., New Orleans.

Christian Science Church, Shreveport
2300 sq. ft., XXX Blue Cork Carpet, laid in auditorium, 1922. Cemented over felt to wood underfloor by Hearne Dry Goods Co., Ltd., Shreveport. Architect—J. O. Mitchel.

Maine

Methodist Episcopal Church, Farmington
2560 sq. ft., Blue Cork Carpet. Cemented over felt to wood underfloor by Roy F. Gammon Furniture Co., Farmington.

Maryland

Chesapeake & Potomac Tele. Co., Baltimore
8100 sq. ft., A Gauge Brown. Cemented to concrete underfloor by Daniel Miller Company.

Fidelity National Bank, Frostburg
1620 sq. ft., $\frac{1}{4}$ " Green. Cemented over felt to wood underfloor.

Massachusetts

Bankers' Trust Building, Boston
67,500 sq. ft., $\frac{1}{4}$ " Brown. Cemented directly to concrete underfloors by John H. Pray & Sons Co., Boston. Architect—Clinton J. Warren.

Hotel Nonotuck, Holyoke
1620 sq. ft., $\frac{1}{4}$ " Green, laid as dance floor. Cemented over felt to concrete underfloor by McLean Bros., Inc., of Holyoke.

Michigan

Standard Accident Insurance Co., Detroit
81,000 sq. ft., $\frac{1}{4}$ " Brown, laid in offices. Cemented directly to concrete underfloors by Burnham-Stoepel & Co., Detroit. Architect—Albert Kahn, Detroit.

Y. W. C. A., Grand Rapids
7245 sq. ft., $\frac{1}{4}$ " Gray and Brown, laid in cafeteria and rest room. Cemented over felt to concrete underfloors by Herpolsheimer Co., Grand Rapids. Architects—Robinson & Campau.

Minnesota

Marshall Wells Co., Duluth
27,000 sq. ft., $\frac{1}{4}$ " Green, laid in offices, 1920. Cemented over felt to wood underfloors.

Wayzata School, Wayzata
7875 sq. ft., $\frac{1}{4}$ " Brown and Dark Gray, laid 1921. Cemented directly to concrete underfloors by L. S. Donaldson Co., Minneapolis. Architects—Hewitt & Brown.

Mississippi

Owl Drug Co., Hattiesburg
1260 sq. ft., Inset Tile Inlaid, No. T41. Cemented over felt by J. S. Turner Co.

Missouri

William Cullen Bryant School, Kansas City
6075 sq. ft., $\frac{1}{4}$ " Brown, laid in auditorium, 1921. Cemented directly to concrete underfloor by A. G. Harper, Kansas City. Architects—Smith, Rea & Lovitt.

Bell Telephone Co., St. Joseph
18,000 sq. ft., $\frac{1}{4}$ " Brown, laid 1922. Cemented directly to concrete underfloor by Robt. Keith Furniture Co., Kansas City.

Pilsbry Becker Engr. & Sup. Co., St. Louis
27,000 sq. ft., $\frac{1}{4}$ " Green, laid in general offices. Cemented over felt to concrete underfloors by Trorlicht-Duncker Carpet Co., St. Louis. Architects—Klipstein & Rathman.

Woodward Grade School, St. Louis
43,200 sq. ft., XXX Terra Cotta Cork Carpet, laid 1922. Cemented directly to concrete underfloors by Stix, Baer & Fuller, St. Louis.

Montana

State Hospital for Insane, Warm Springs
1150 sq. ft., $\frac{3}{16}$ " Brown, laid 1920. Cemented over felt to concrete underfloors. Architects—Arnold & Van House, Butte.

New Hampshire

Nashua Manufacturing Co., Nashua
6000 sq. ft., $\frac{3}{16}$ " Brown, laid in offices of Jackson Mill by John H. Pray & Sons Co., Boston, Mass. Architects—Lockwood, Greene & Co., Boston.

New Jersey

Jersey City Hospital, Jersey City
72,000 sq. ft., A Gauge Gray Jaspé, laid 1921. Cemented over felt to concrete underfloors by J. W. Greene, Inc., Jersey City. Architect—John T. Rowland, Jr.

Globe Indemnity Company, Newark
15,300 sq. ft., 6-mm. Brown, laid in recreation room, 1920. Cemented over felt to concrete underfloor by Conradson & Hill, New York City. Architect—Frank Goodwillie, New York City.

Residence, D. H. Lynen, Ridgewood
5400 sq. ft., A Gauge Brown, laid in bedrooms and dining-rooms, 1922. Cemented over felt to wood underfloors by S. Finck Co., New York City.

New Mexico

State Capitol, Santa Fe
18,000 sq. ft., $\frac{1}{4}$ " Brown. Cemented to concrete underfloors by Beacham-Mignardot Hardware Co.

New York

Columbian Rope Co., Auburn
7200 sq. ft., $\frac{1}{4}$ " Brown. Cemented over felt to wood and concrete underfloors by Fowler-Henderson Co.

Brooklyn Edison Co., Brooklyn
135,000 sq. ft., A Gauge Brown. Cemented to concrete underfloors by the S. Finck Co., of New York City.

Buffalo City Hospital, Buffalo
144,000 sq. ft., $\frac{1}{4}$ " Brown, laid 1922. Cemented directly to concrete floors by Hens-Kelly Co. and H. A. Meldrum Co., Buffalo. Architects—F. J. & W. A. Kidd.

Dr. D. M. Arkin, New York City
450 sq. ft., Inset Tile Inlaid, No. T42, with black border, laid in office, 1921. Cemented over felt to concrete underfloor by Conradson & Hill.

Mt. Sinai Hospital, New York City
45,000 sq. ft., $\frac{1}{4}$ " Brown, laid 1921. Cemented directly to concrete underfloors by S. Finck Co., New York City. Architect—Arnold Brunner.

Remington Typewriter Co., New York City
54,000 sq. ft., A Gauge Brown, laid in offices. Cemented over felt to wood underfloor by Conradson & Hill, New York City.

Maple Avenue School, Niagara Falls
27,000 sq. ft., $\frac{1}{4}$ " Brown, laid 1922. Cemented directly to concrete underfloor by Bier Bros., Niagara Falls. Architects—Cannon and Kirkpatrick.

North Carolina

Central Cafeteria, Charlotte
4500 sq. ft., Inset Tile Inlaid, No. T42. Cemented over felt by Belk Bros.

Peoples National Bank, Winston-Salem
2700 sq. ft., XXX Brown Cork Carpet laid by Huntley-Hill-Stockton Co., Winston-Salem.

Ohio

Central Savings Bank, Canton
360 sq. ft., Inset Tile Inlaid T42 with black border, laid 1922. Cemented over felt to maple underfloor by Thurin Carpet Co., Canton. Architect—M. L. Miller.

Ohio Rubber Co., Cleveland
12,600 sq. ft., A Gauge Gray Jaspé and $\frac{1}{4}$ " Dark Gray, laid in show room and offices. Cemented over felt to wood underfloors.

City Hospital, Youngstown
27,000 sq. ft., $\frac{3}{16}$ " Brown, laid in wards and corridors, 1914. Cemented directly to floor by The Strouss-Hirshberg Co., Youngstown.

Oklahoma

Masonic Temple, Enid
11,300 sq. ft., $\frac{3}{16}$ " Gray, laid 1922. Cemented over felt to concrete underfloors by Johnson & Brown, Enid. Architect—R. W. Shaw.

Merry Optical Company, Oklahoma City
2070 sq. ft., $\frac{3}{16}$ " Brown, laid in office, 1921. Cemented directly to concrete underfloor by Harbour-Longmire Co., Oklahoma City.

Oregon

University of Oregon, Eugene
6500 sq. ft., $\frac{1}{4}$ " Battleship Linoleum and Cork Carpet laid in Women's Building and Commerce Building by Cork Floor Products Co., Portland. Architect—Ellis F. Lawrence.

Good Samaritan Hospital, Portland
4900 sq. ft., $\frac{3}{16}$ " Brown and Parquetry laid by Cork Floor Products Co., Portland.

Pennsylvania

Conemaugh Valley Home, Johnstown
5940 sq. ft., $\frac{3}{16}$ " Brown, laid 1922. Cemented directly to concrete underfloors by Penn Traffic Company, Johnstown. Architect—Walter G. Myton.

Boas Street Grade School, Harrisburg
20,700 sq. ft., $\frac{1}{4}$ " Brown and Green, laid 1922. Cemented directly to concrete underfloors by Bowman & Co., Harrisburg. Architect—Charles Howard Lloyd.

Allegheny General Hospital, Pittsburgh
10,800 sq. ft., A Gauge Brown and Gray Jaspé, laid 1921. Cemented over felt to wood underfloors by Boggs & Buhl, Pittsburgh. Architects—McClure & Spahr.

Ingham & Boyd, Architects, Pittsburgh
270 sq. ft., A Gauge Brown, laid in offices, 1921. Cemented over felt to wood underfloors by Boggs & Buhl, Pittsburgh. Architects—Ingham & Boyd.

Mellon National Bank, Pittsburgh
27,000 sq. ft. 6-mm. Brown, laid in offices and hallways. Cemented directly to concrete underfloors by Kaufmann's Dept. Store. Architect—Trowbridge & Livingston, New York City.

Lackawanna County Court House, Scranton
9000 sq. ft., $\frac{1}{4}$ " Brown, laid in court rooms, 1921. Cemented over felt to wood underfloors by MacWilliams, Wilkes-Barre. Architect—Frederick Nelson.

Rhode Island

State Institution for Feeble Minded, Howard
3475 sq. ft., $\frac{1}{4}$ " Brown. Cemented to concrete underfloors by Flint-Adaskin Furniture Co.

New England Telephone & Telegraph Co., Providence
2700 sq. ft., $\frac{1}{4}$ " Brown, laid in Broad Street Exchange, 1921. Cemented over felt to wood and concrete underfloors by Flint-Adaskin Furniture Co., Providence. Architect—Clark & Howe.

South Carolina

Citadel Square Baptist Church, Charleston
9270 sq. ft., $\frac{1}{4}$ " Gray, laid throughout, 1921. Laid by Kerrison Dry Goods Co.

Converse College, Spartanburg
10,125 sq. ft. Inlaid and Cork Carpet. Bradded to wood floor by Vogel & Son.

South Dakota

State Soldiers' Home, Hot Springs
10,800 sq. ft., 6-mm. Green. Cemented over felt by Denoir Dry Goods Co.

Pennington Co. Court House, Rapid City
13,500 sq. ft., $\frac{1}{4}$ " Brown, laid 1922. Cemented over felt to concrete underfloors by L. Ginsberg & Sons, Des Moines, Iowa. Architects—W. E. Hulse & Co.

Tennessee

Baptist Memorial Hospital, Memphis
63,000 sq. ft., $\frac{3}{16}$ " Brown. Cemented directly to concrete underfloors by Jennings Furn. Co., Architect—C. O. Pfeil.

Protestant Memorial Hospital, Nashville
7500 sq. ft., Parquetry Inlaid, laid 1921. Cemented over felt to wood underfloor by Castner-Knott Dry Goods Co.

Texas

Great Southern Life Insurance Co., Houston
13,500 sq. ft., $\frac{3}{16}$ " Brown, laid in general offices. Cemented over felt by G. A. Stowers Furniture Co. Architects—Barglebaugh & Whitson.

Gulf Refining Company, Port Arthur
5300 sq. ft., $\frac{1}{4}$ " Brown, laid in offices, 1923. Cemented over felt by Crowell-Gifford Co., Port Arthur.

San Antonio Telephone Co., San Antonio
4500 sq. ft., $\frac{3}{16}$ " Brown, laid in offices. Cemented to concrete underfloors by G. A. Stowers Furn. Co.

Vermont

Elks' Home, St. Johnsbury
1413 sq. ft., A Gauge Gray Jaspé, laid 1919. Cemented directly to wood underfloor by Charles C. Locke Co.

Virginia

Negro Memorial Hospital, Richmond
27,000 sq. ft., $\frac{1}{4}$ " Green. Cemented over felt to concrete underfloors by Miller & Rhoads, Richmond. Architects—Baskerville and Lambert, Richmond.

Scottish Rite Cathedral, Richmond
3330 sq. ft., Green Cork Carpet, laid in auditorium, 1921, by Pettit & Co., Richmond. Architect—C. M. Robinson.

Washington

University of Washington, Seattle
19,800 sq. ft., $\frac{3}{16}$ " Brown, laid in Administrative Offices. Cemented directly to concrete by D. E. Fryer & Co., Seattle. Architect—Bebb & Gould.

Bass-Hueter Paint Co., Tacoma
2250 sq. ft., A Gauge Dark Gray laid in store. Cemented over felt to concrete underfloors by V. G. Impett & Co.

West Virginia

Shenandoah Valley Bank, Martinsburg
1620 sq. ft., $\frac{3}{16}$ " Brown, laid in Directors' Room. Bradded to floor by Martinsburg Furn. Co., Martinsburg. Architect—C. L. Harding, Washington, D. C.

Wisconsin

High School, Fond du Lac
30,600 sq. ft., $\frac{1}{4}$ " Brown, laid 1922. Cemented directly to concrete underfloors by The Treleven Co., Fond du Lac. Architect—Childs & Smith.

Clinic Hospital, Sheboygan
11,610 sq. ft., $\frac{1}{4}$ " Brown. Cemented over felt by J. & W. Jung Co., Sheboygan. Architect—E. A. Stubenrauch.

Wyoming

University of Wyoming, Laramie
4500 sq. ft., $\frac{1}{4}$ " Brown laid in University Library. Cemented over felt to concrete underfloors by The Sherman Co., Cheyenne. Architect—W. A. Hitchcock.

How to Get Armstrong's Linoleum

Armstrong's Linoleum is sold through retailers of home furnishings and floor coverings, as well as linoleum contractors. In practically every city there is at least one good firm which makes a specialty of laying in accordance with the Armstrong Specifications. Names of such firms, on request.

Contract Department

Architects, contractors, and owners are invited to use the services of the Armstrong Contract Department, which is prepared to recommend gauges and patterns, supply technical information on the laying and care of floors, and work with architects or contractors in estimating from blueprints.

Bureau of Interior Decoration

For the benefit of architects, decorators, and others interested in the use of linoleum as a decorative floor material, a Bureau of Interior Decoration, in charge of an experienced interior decorator, is maintained by the Company. This Bureau will gladly send samples of linoleum patterns and suggestions as to designs and color schemes that will be suitable for any particular problem. Information and recommendations as to the use of linoleum floors for living-rooms, dining-rooms, bedrooms, and other rooms of the home especially, may be obtained at no cost or obligation whatever.

The Armstrong Line

The Armstrong Cork Company, manufacturers of cork products since 1860, has six domestic factories and fourteen foreign plants—the former located at Camden, N. J.,

Pittsburgh, Oakdale, and Beaver Falls, Pa., and two at Lancaster, Pa.

Following is a list of the principal products of the Armstrong Cork Company:

INSULATING MATERIALS		Armstrong's Cork Carpet		Acco Cork Gaskets	
Nonpareil Cork Covering		for Churches, Libraries, etc.		for Motor Cars	
for Cold Pipes		Armstrong's Cork Tile		Korxole	
Nonpareil, Acme & Eureka Cork-board		for Bathrooms, Libraries, Museums, Billiard Rooms, etc.		Flexible Cork Shoe Innersoling	
for insulating Cork Storage Rooms		Linotile		Circle A Rubber Heels	
Nonpareil High Pressure Covering		for Offices, Banks, Theaters, Kitchens, Pantries, Elevators, etc.		for Shoes	
for Steam Lines, Boilers, etc.		Circle A Cork Brick		Corks of Every Description	
Nonpareil Insulating Brick		for Warehouses, Stables, Shipping Platforms, etc.		Cork Discs and Washers	
for Boiler Settings, Furnaces, Ovens, etc.		MISCELLANEOUS		Bungs and Taps	
FLOORING MATERIALS		Nonpareil Cork Machinery Isolation		Insoles	
Armstrong's Linoleum		for Deadening the Noise of Fans, Presses, and Motors		Carburetor, Oil and Gasoline Floats	
Plain, Jaspé, Inlaid, Printed				Handles	
				Bath and Table Mats	
				Life Preservers Buoy	
				Yacht Fenders Granulated Cork	
				All Kinds of Cork Specialties	

Literature and Samples

Upon request, any architect, contractor, builder, or decorator, may obtain free literature and samples as follows:

(a) *Business Floors*—48-page booklet, 6x9 inches, explaining use of linoleum for offices, stores, theaters, banks, schools, hospitals, etc. Contains reproductions in color of patterns suitable for business floors, with directions for laying and caring for linoleum.

(b) *Decorative Linoleum Floors*—a 16-page, 11¼x14¾ portfolio, containing large colorplates of home and business interiors,

with a discussion of the use of linoleum.

(c) *Detailed Directions for Laying and Caring for Linoleum*—a 48-page, 5x7-inch handbook of instructions for linoleum layers.

(d) *Pocket Size Pattern Book*—a 208-page book, 3½x6 inches, showing reproductions in color of all patterns in the Armstrong line.

(e) *Quality Sample Books*—2 books, 3½x6 inches, containing Armstrong's Plain and Jaspé Linoleum and Armstrong's Inlaid and Printed Linoleum.



PRETTIER rooms! Rooms of color! The last few years have brought in a growing vogue for brighter, more cheerful interiors.

Color and design in floors is part of this decorative trend. For in any room the floor is always the biggest expanse that meets the eye. The floor must complement or contrast with the other furnishings.

Eight years ago the makers of Armstrong's Linoleum established their Bureau of Interior Decoration. They had a new conception of linoleum. They saw linoleum not merely as a durable, sanitary, easily cleaned floor, but as a floor of beauty.

Today in all the finer patterns and colors Armstrong's Linoleum is designed and made with the idea—

First, that linoleum shall be bought with an eye to its beauty,

Secondly, that it shall be laid for permanency, with cement, over a lining of heavy deadening felt (no tacking), and,

Thirdly, that it shall be waxed and cared for as any fine floor should be.

Very soon interior decorators saw the possibilities of color in floors. Architects, too, have become interested in the idea. Women have been quick to see what fine floors the newer and better designs in Armstrong's Linoleum make for their best rooms.

Many interesting designs have been developed. This colorful marble inlaid pattern (No. 71) and the rippling two-tone gray jaspé in the living-room beyond the hall are among the finest.

Colorplates of a selection of these newer designs are offered, to anyone interested, free upon request.

Armstrong Cork Company, Linoleum Division, Lancaster, Penna.

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YOU naturally associate floors having a tile or repeat block pattern with a certain formal dignity. This English living-room has a floor of Armstrong's Marble Inlaid Linoleum, a beautiful design in two-tone grays. Linoleum is well adapted to the tile design, especially since the modern way of laying the long six-foot-wide strips (cementing down over a lining of heavy deadening felt) permits a close joining at seams and edges and makes a water-tight, permanent floor that does not bulge or buckle.

And the colors of linoleum—you can have almost any color you need to harmonize with your other furnishings—offer an opportunity for real distinction in a room. Your fine fabric rugs look better and brighter. Notice the rugs in the picture. Your own sense of color will tell you how they "belong" on this floor, and how they would suffer if the floor were yellowish wood. Colorplates of a selection of the newer designs and colorings in Armstrong's Linoleum are offered, free, upon request.

Armstrong Cork Company, Linoleum Division, Lancaster, Penna.

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MUCH of the charm of this dainty bedroom in lavenders and grays would be lacking were the floor the ordinary yellow wood floor—seen in so many homes! But the floor of Armstrong's Gray Jaspé Linoleum is the very foundation of this particular color scheme. The beautiful two-toned jaspé floor makes the effect just right. And there are other jaspé colorings—blue, green, dark brown, light brown—just as charming, for other decorative plans.

Its warm mixture of neutral colors makes Armstrong's Jaspé the linoleum

for every floor in the house. The rippled waves of grays or browns lend interest to the otherwise monotonous surface, and at the same time afford a quiet background and a subdued harmony that are entirely in place in living-room, hallway, dining-room, or bedroom.

The Armstrong Bureau of Interior Decoration will gladly give you individual color scheme suggestions, without cost or obligation, if you will describe any room or rooms that you want to decorate.

Armstrong Cork Company, Linoleum Division, Lancaster, Penna.



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CCA

Use Modern Linoleum in Designing Distinctive Floors

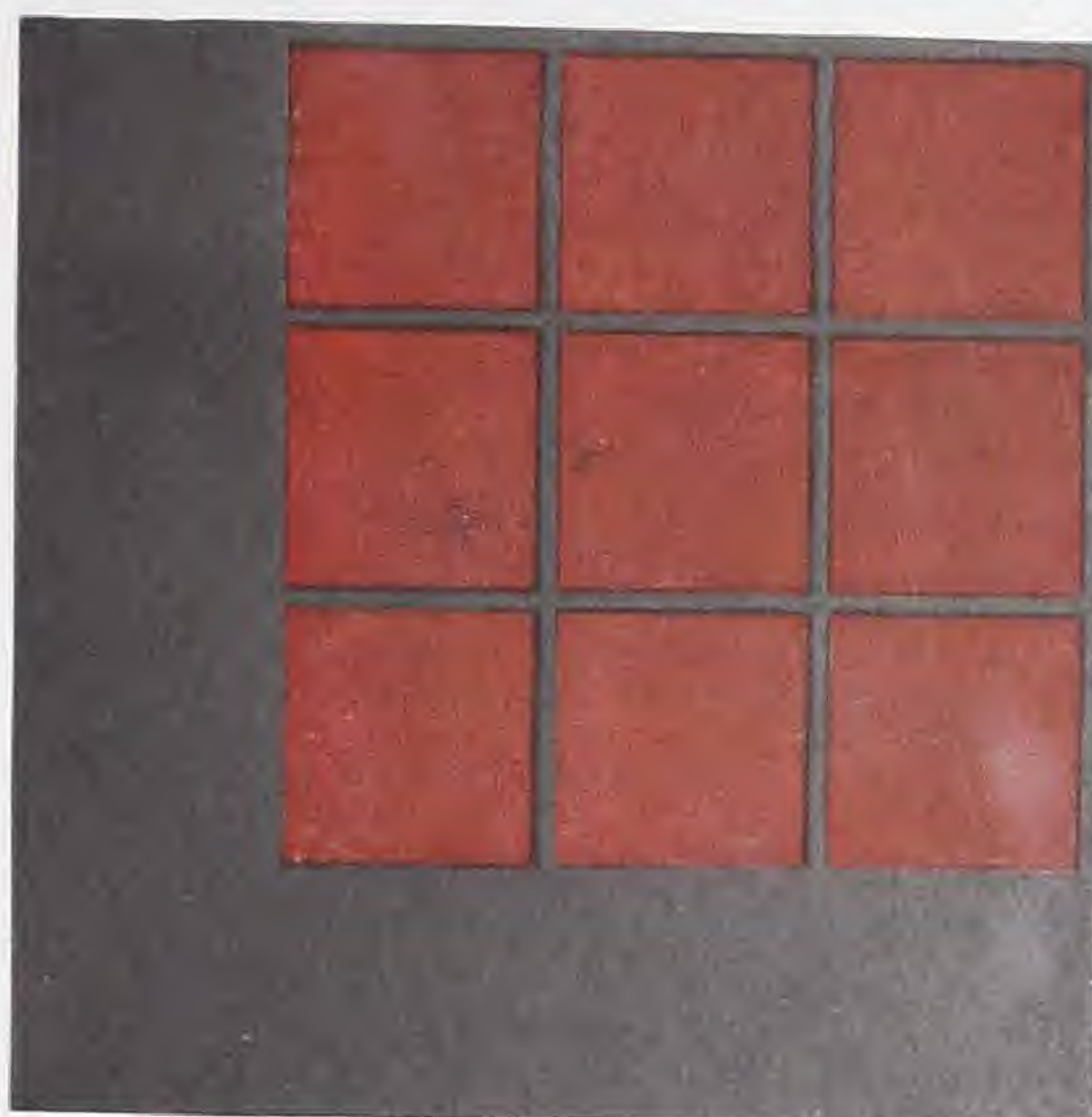
A recent development in the use of Armstrong's Linoleum is the designing of bordered, paneled, and otherwise individualized floors. For instance, the floor may have a border of plain or jaspé, in combination with a field of another color of plain or jaspé, or a pattern of inlaid. Several border combinations are presented to indicate the great variety of individual floor designs that can be had in modern linoleum.

Bordered linoleum floors are particularly well suited for private offices, specialty shops, banks, restaurants, hotel and theater lobbies, sun porches, where a distinctive, handsome floor is a definite asset.

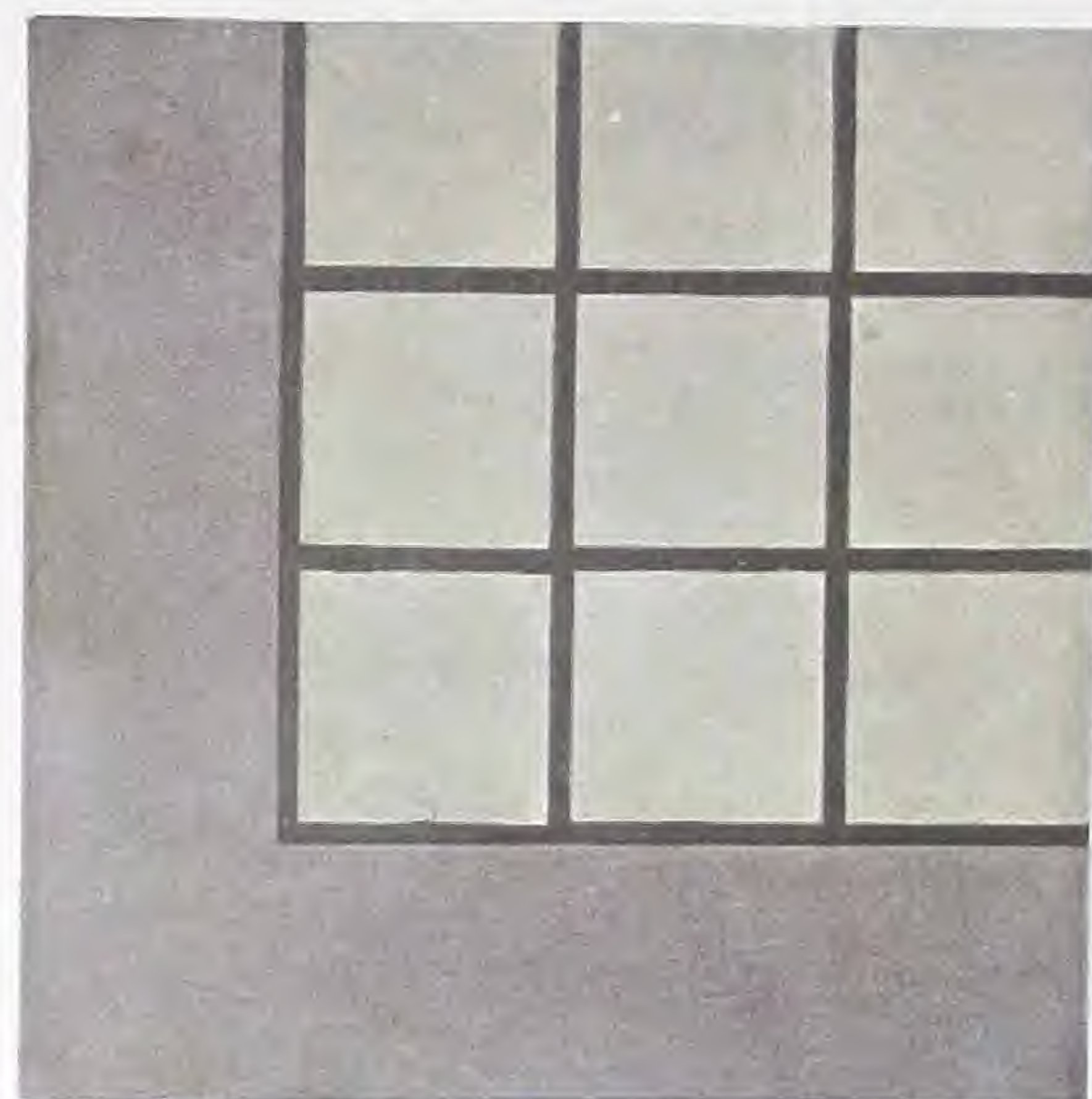
The following pages show some of the modern inlaid designs, as well as plain and jaspé colorings in Armstrong's Linoleum. The entire line of 321 patterns is shown in the pocket size Pattern Book, free on request.



Field of Inset Marble Tile Inlaid No. M62
Border of Dark Gray Jaspé No. 15



Field of Inset Tile Inlaid No. T41
Border of Plain Black No. 27



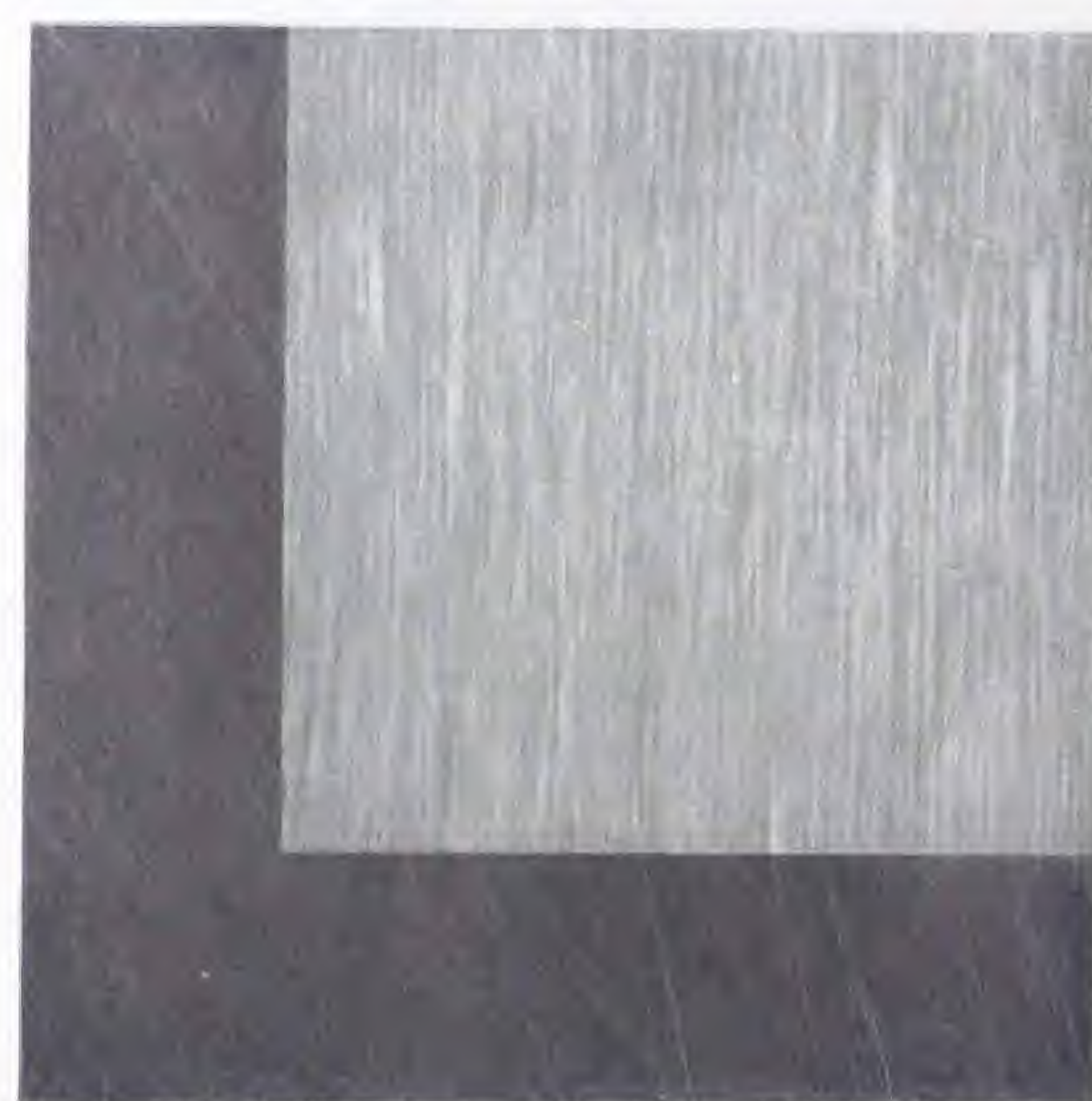
Field of Inset Tile Inlaid No. T42
Border of Plain Dark Gray No. 22



Field of Parquetry Tile Inlaid No. P80
Border of Dark Brown Jaspé No. 17

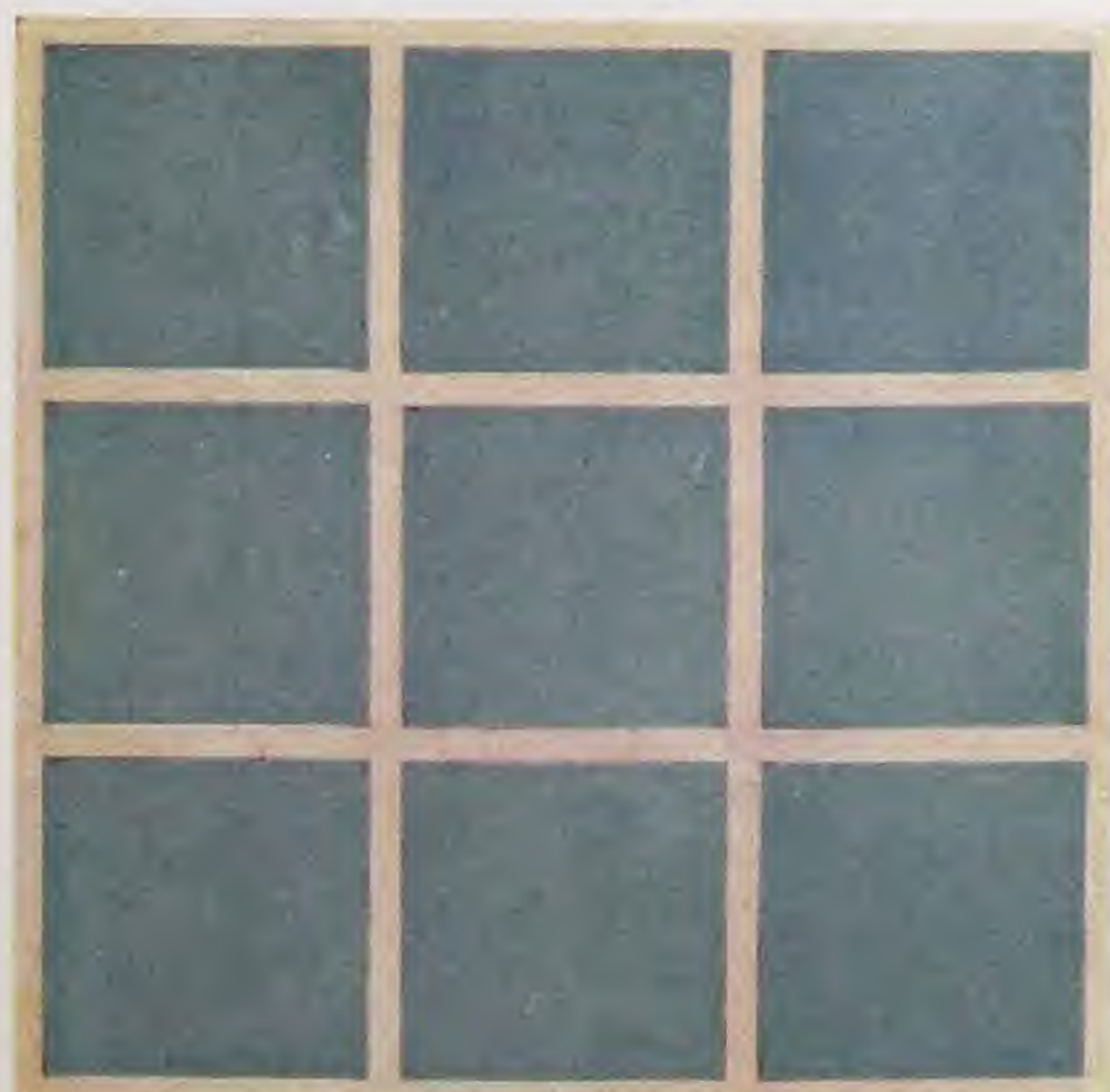


Field of Inset Tile Inlaid No. T46
Border of Plain Green No. 21

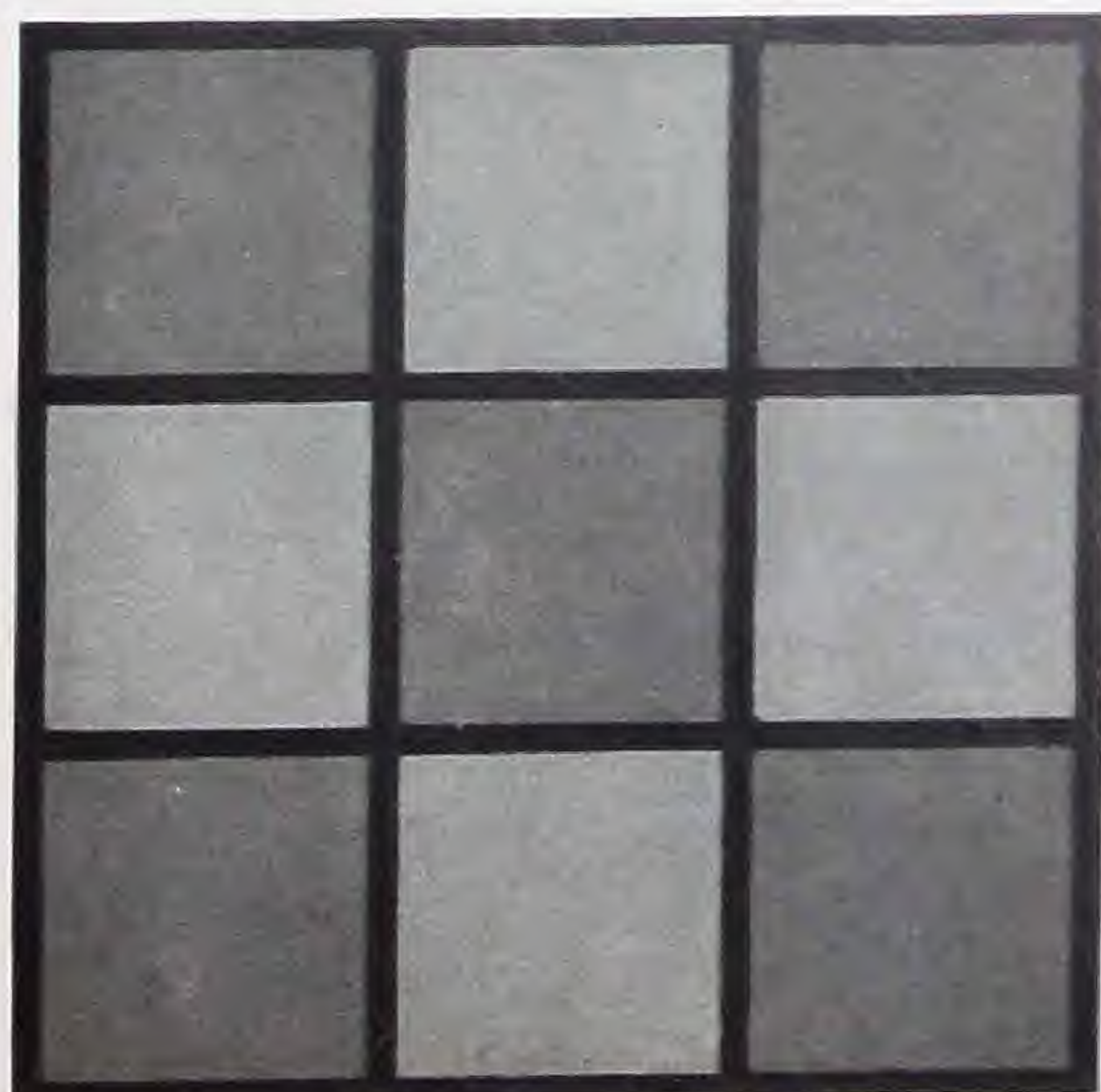


Field of Dark Gray Jaspé No. 15
Border of Plain Black No. 27

These Straight Line Inset Tile Inlaid Patterns Suggest Interesting Floors



Inset Tile Inlaid No. T40
(5 1/2-inch blocks with 1/2-inch interliners)



Inset Tile Inlaid No. T48
(5 1/2-inch blocks with 1/2-inch interliners)



Inset Tile Inlaid No. T47
(5 1/2-inch blocks with 1/2-inch interliners)



Plain Brown No. 20



Plain Green No. 21



Plain Dark Gray No. 22



Plain Light Gray No. 26



Plain Black No. 27



Plain Blue No. 29



Light Gray Jaspé No. 13



Dark Gray Jaspé No. 15



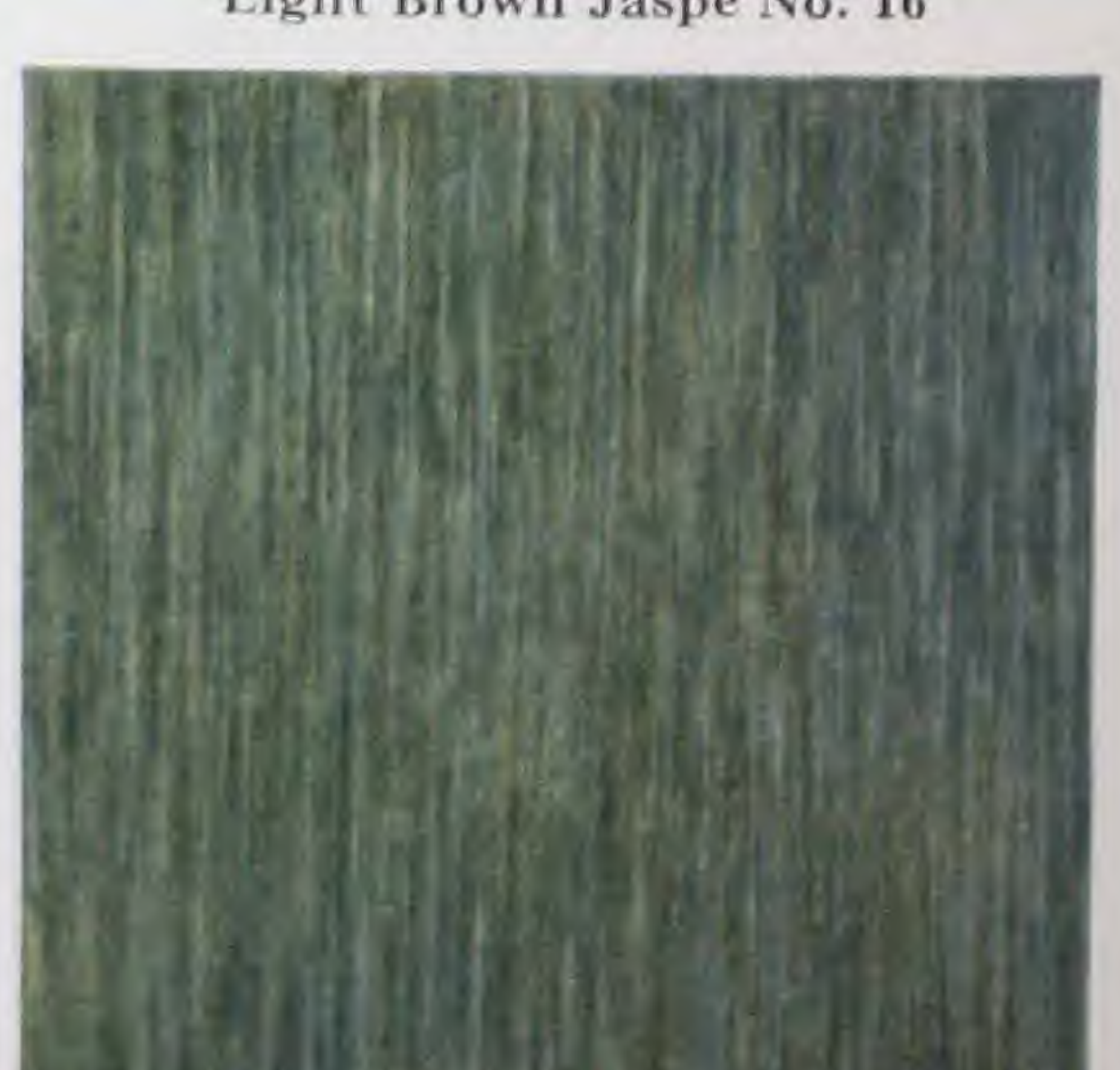
Light Brown Jaspé No. 16



Dark Brown Jaspé No. 17



Blue Jaspé No. 18



Green Jaspé No. 19

Marble Inlaid Designs in Keeping with the Latest Tendencies in Floor Decoration

With this newest kind of linoleum, the architect has the means at hand to create fine looking, serviceable floors

at very moderate cost. Marble Inlaids look well when bordered or paneled with plains and jaspés.



Marble Inlaid No. 71
(Blocks are 6 inches square)



Marble Inlaid No. 72
(Blocks are 9 inches square)



Marble Inlaid No. 74
(Blocks are 9 inches square)



Marble Inlaid No. 75
(Blocks 7 inches x 7 inches, bands 2 inches wide)



Marble Inlaid No. 76
(Blocks are 12 inches square)



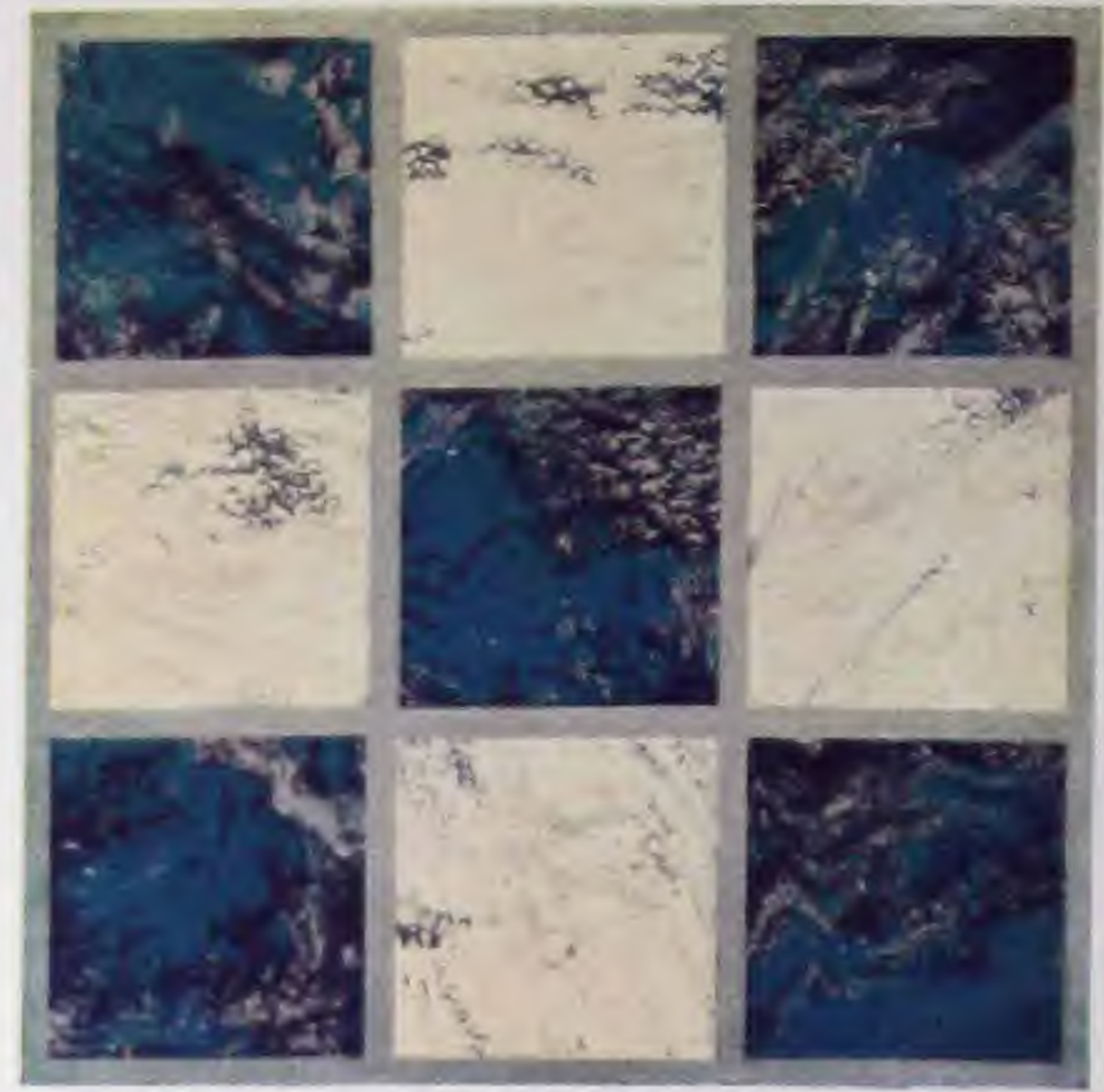
Marble Inlaid No. 77
(Blocks are 12 inches square)



Inset Marble Tile Inlaid No. M63
($5\frac{1}{2}$ -inch blocks with $\frac{1}{2}$ -inch interliners)



Straight Line Inlaid No. 285
(4-inch blocks—No. 295 has 12-inch blocks)



Inset Marble Tile Inlaid No. M64
($5\frac{1}{2}$ -inch blocks with $\frac{1}{2}$ -inch interliners)



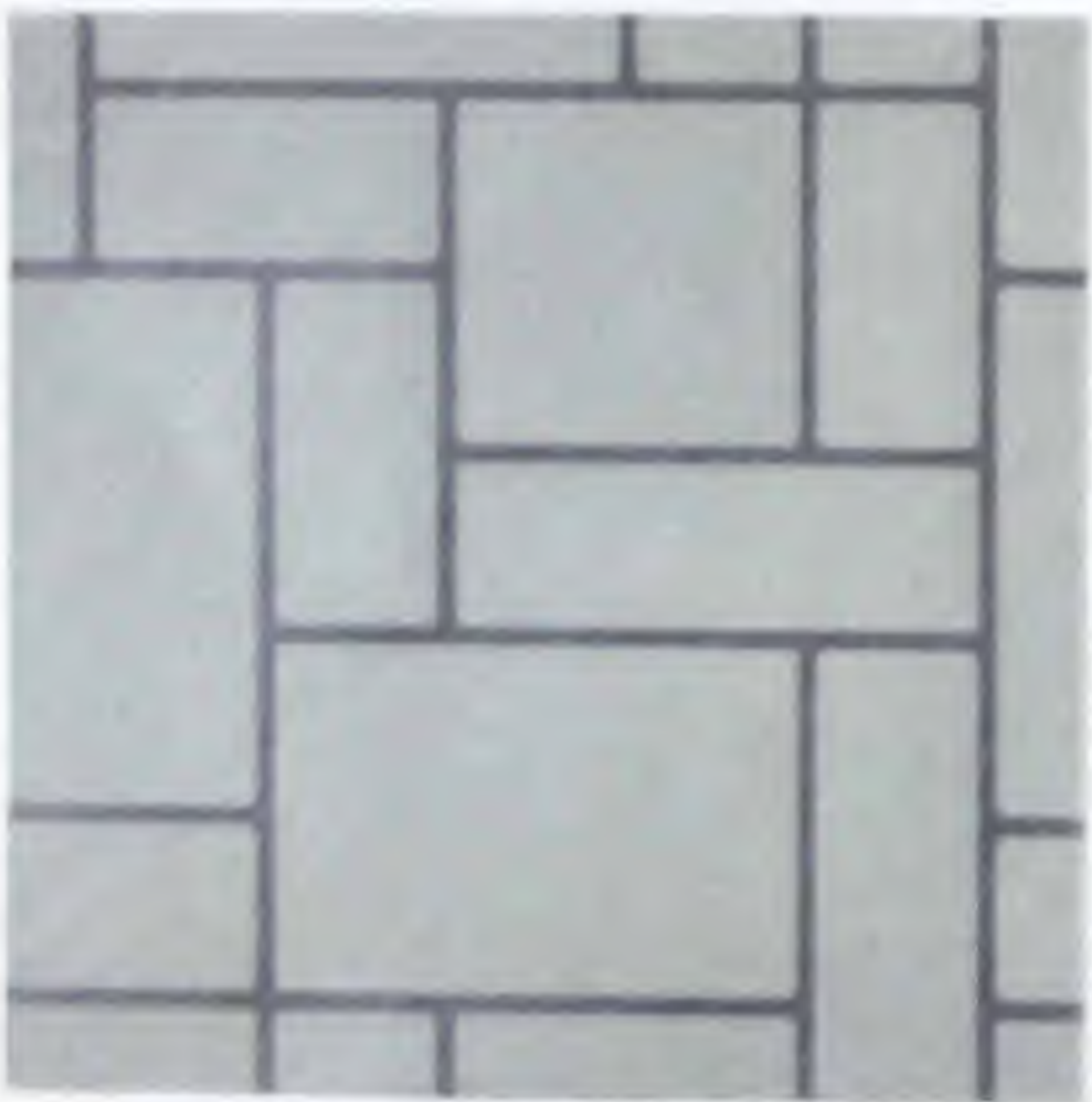
Straight Line Inlaid No. 214
(Blocks are 2 inches square)



Straight Line Inlaid No. 201
(Blocks are 2 inches square)



Moulded Inlaid No. 3040
(Pattern is $\frac{1}{4}$ actual size)



Moulded Inlaid No. 3041
(Pattern is $\frac{1}{4}$ actual size)



Moulded Inlaid No. 3050
(Pattern is $\frac{1}{4}$ actual size)



Moulded Inlaid No. 5064
(Pattern is $\frac{1}{4}$ actual size)



Moulded Inlaid No. 3115
(Pattern is $\frac{1}{4}$ actual size)



Moulded Inlaid No. 3382
(Pattern is $\frac{1}{4}$ actual size)



Moulded Inlaid No. 5105
(Pattern is $\frac{1}{4}$ actual size)

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